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ISSUE 330



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“THIS ISSUE IS FULL OF THE SUBTLE THINGS THAT SHAPE PC GAMING”



PHIL SAVAGE
Specialist in
Vampire

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[@Octaeder](https://twitter.com/Octaeder)

This month
Managed to convince people that playing a whole bunch of free games was work.

As a long time PC gamer, I think my sense of perspective has been permanently broken. I enjoy a *Battlefield* or *Assassin's Creed*, sure, but it takes the resurrection of a 15-year-old cult classic to really get me excited. That's the kind of PC game I feel proud to have on our cover.

This issue is full of the subtle things that shape PC gaming. We cover the news of *Dwarf Fortress* coming to Steam, reveal the rebirth of *Divinity* as a turn-based tactical strategy, and celebrate diversity and creativity in our round up of the best free games. We've also got reviews of *The Division 2* and *Anthem*, because there's still always a place for some big, dumb fun.

Phil Savage

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The PC Gamer team



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This month
Prowled the dark streets of Stockholm, hunting for information about *Bloodlines 2*.



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This month
Got a crash course in physics when he interviewed Turn 10 about car simulation.



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This month
Saw the option to ride dinosaurs in *Age of Wonders: Planetfall* and never looked back.



PHILIPPA WARR
Specialist in
Changeling

This month
Is leaving PCG to write wonderful things about games *and* not-games. Still made this issue as Pip as possible by writing about fish *and* bugs.

Contents

#330
MAY 2019

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Monitor

- 08 THE TOP STORY**
Dwarf Fortress comes to Steam.
- 10 THE SPY**
The rumours are out there.
- 12 SPECIAL REPORT**
The role of audience analysis.
- 14 INFOCUS**
How to make a HOPA scene.
- 16 INSIDE DEVELOPMENT**
Why developers make merchandise.

Previews

- 18** Age of Wonders: Planetfall
- 22** Afterparty
- 24** Divinity: Fallen Heroes
- 28** Barotrauma
- 30** Iratus: Lord of the Dead

Features

- 34 Bloodlines 2**
Vampire: The Masquerade is back from the dead.
- 44 Forza Motorsport**
How does Turn 10 make its cars feel so good to drive?
- 50 Abzu**
Exploring how the meditative diving game recreates the dream of scuba.
- 54 The Top 50 Free Games**
A selection of amazing games that cost nothing to play.

GET YOUR
FREE GIFTS



Turn to page 66

34



24 DIVINITY: FALLEN HEROES

Andy uncovers the follow-up to *Divinity: Original Sin 2*. Surprise! It's a tactical strategy.

34 VAMPIRE: THE MASQUERADE

The cult favourite vampire RPG returns, this time with Paradox at the helm. Rick Lane investigates.

44 FORZA MOTORSPORT

Andy talks to Turn 10 Studios about creating the simulation that powers the *Forza* series.



24



54



44



70



100

54 THE TOP 50 FREE GAMES

Our annual list of the best 50 free games you can play. No microtransactions allowed.

70 THE DIVISION 2 REVIEW

Sam explores Washington DC in search of the finest kneepads in the loot table.

100 MOTHERBOARD GROUP TEST

A crucial part of your PC build. Our hardware experts can help you find the right mobo for your rig.

Reviews

- 70 The Division 2
- 74 Dirt Rally 2.0
- 76 Devil May Cry 5
- 78 Baba is You
- 80 Ape Out
- 82 Devotion
- 84 Eastshade
- 86 Anthem
- 90 Trials Rising
- 92 Hypnospace Outlaw

FREE GAMES

- 94 How to Be a Tree
- 95 Bird of Passage
- 95 A Knight's Fee

THEY'RE BACK

- 96 Alpha Protocol
- 97 Stories Untold
- 97 Broken Sword 3
- 97 Rusty Lake Roots
- 97 Indiana Jones and the Fate of Atlantis

Hardware

100 GROUP TEST

The best motherboards.

104 BUYER'S GUIDE

What're you buying?

Extra Life

108 NOW PLAYING

The *Warframe* joke that just won't die.

112 MOD SPOTLIGHT

A *STALKER* megamod.

116 HOW TO

Keep your PC healthy.

118 DIARY

Part three of Rick's *Dishonored 2* adventure.

122 REINSTALL

Why *Bulletstorm* is the smartest dumb game around.

126 WHY I LOVE

Detailed nature in games.

128 MUST PLAY

Andy's favourite PC games.

MONITOR

NEWS | OPINION | DEVELOPMENT



MAKING CHANGE

DWARF FORTRESS devs announce a paid-for version

Long running cult favourite *Dwarf Fortress* is coming to Steam and Itch.io. After 12 years as a freeware project supported by donations, brothers Tarn and Zach Adams who make up Bay 12 are working with Kitfox Games to launch a \$20 version which offers a new tile set, enhanced graphics and audio.

The free ASCII version isn't going anywhere and will be updated and released on the Bay 12 web page, it's just going to be called *Dwarf Fortress Classic*. The reasoning behind the Steam and Itch.io version is tied to

ABOVE: Help support the *Dwarf Fortress* developers

healthcare costs for the developers. Essentially they're trying to find a way to continue working on the game while ensuring financial stability in the face of health concerns.

As per the official Bay 12 blog, "We don't talk about this much, but for many years, Zach has been on

"IT'S A SOURCE OF CONCERN, AS THE PLAN HAS CHANGED A FEW TIMES"

expensive medication, which has fortunately been covered by his healthcare. It's a source of constant concern, as the plan has changed a few times ... After Zach's latest cancer scare, we determined that with my healthcare plan's copay etc, I'd be wiped out if I had to undergo the same procedures."

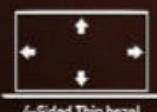
They add that the paid-for release is still months away though and that support via crowdfunding is still crucial (there's a Patreon page and a Paypal support option via the Bay 12 page), especially if a paid release doesn't swing the financial needle as much as they need.

Philippa Warr

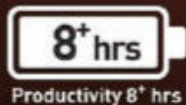


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The Spy

BUT WHO WATCHES THE SPY?

If you ever find yourself looking at a game rumour online and wondering if it's real or not, The Spy has a 100 percent guaranteed way to confirm its veracity: just wait. For instance, as The Spy writes this, a rumour is floating around that Paradox is on the verge of announcing a sequel to *Vampire: The Masquerade – Bloodlines*. You, however, as you hold this magazine in your hands, can just look to the cover and know that it was true. Waiting. It works!

Or how about the rumour that Sony – creators of worldwide phenomenon the PlayStation Vita – was in talks to buy Take-Two Interactive – owners of 2K Games, who once published *Battleborn*. This caused a brief flurry of discourse among the kind of people who are too busy having opinions to check if things are true or not. “What if a hypothetical *Battleborn 2: Genre-Blended; Meta-Growth Boogaloo* never came to PC?!” they wailed.

The Spy, of course, was not fooled by such questions, because The Spy had eaten a big meal and fallen into an advanced chicken coma. When The Spy awoke, days later, Bloomberg's Tokyo tech reporter Yuji Nakamura had received confirmation from Sony that there was no truth to the reports.

Another example: the rumour that The Spy has kidnapped Randy Pitchford, and will not let him go until he explains what “hobby-

grade coop campaign” actually means, were presumably proved false when Gearbox (presumably) announced *Borderlands 3* at PAX East. The point that The Spy is trying to make is that all of the current rumours being mongered are so short term as to be wholly unsuited to a print production cycle.

For weeks, speculation was rife that the *Halo* series was coming to PC in the form of a *Halo: The Master Chief Collection* release. Rather than sitting on that information for the length of an entire magazine cycle, from creation to printing to delivery, Microsoft just decided to confirm that, yup, it's happening, it's coming to Steam in stages, with the first release being a new addition to the collection, *Halo Reach*.

The Spy blames GDC, which every year proves to be a hotbed of information, imperfectly timed for print production. Think of the fun The Spy could have had with the rumours of Google's streaming service, and the weirdly shaped controller that people pulled out of old patents before Kotaku's Jason Schreier shot them down. And then Google just rocked up to GDC and announced Stadia, its streaming platform that promises to pump gaming magic through your internet pipes.

STEADYING FOR STADIA

Here's a rumour straight from The Spy's own brain: Stadia will at first be a functional but unessential release that, mostly through the force of Google's omnipresence will nevertheless worm its way into your life, posing yet more questions about just how much of your personal data one corporation should own while also somehow incorporating algorithms that make life that much worse. That or it will fail so spectacularly it becomes a meme. With Google, there is no middle ground. At this point The Spy could launch into a thing about a PEGI listing for *Call of Duty: Modern Warfare 2 Remastered*, but what's the point? Activision will probably just announce it in the next five minutes. So, The Spy is going to train a body double to enthuse about “epic *Battleborn Heroes*”. Spy out. ■
The Spy



THE SPY
The Spy communicates exclusively through Google Wave

THE SPY HAD EATEN A BIG MEAL AND FALLEN INTO AN ADVANCED CHICKEN COMA

This month in... 2009



1 What better way to celebrate 200 issues of PC Gamer than with a scattershot list of 200 reasons to love PC gaming? Included are emulators, free games, physics, text adventures, speed runs, “naked pig slapping”, autoexec.bat, *Bejeweled*, “the eternal hope of *Duke Nukem Forever*” (oof), maps, HD texture packs, sniper rifles, Sid Meier, Alyx from *Half-Life 2* and many, many more.

ISSUE
200, May 2009
ON THE COVER
Bioshock 2
IN THE CHARTS
Poker Face – Lady Gaga



2 Of course, 2009 was still a dark time for PC gaming. For instance, this issue's lead review was *Red Alert 3 Uprising*. It scored just a paltry 63 per cent.

3 At least brighter things were on the horizon – brighter things that were nevertheless gloomy and dark and took place underwater. *BioShock 2* perhaps wasn't the return to Rapture many were hoping for, but it was still an enjoyable FPS with some big ideas and an ever bigger drill. In the cover feature, Tom Francis devotes an entire boxout to the drill.

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Special Report

PCG INVESTIGATES

Comparing games can yield useful data.

VIRAL TRANSMISSION

How audience analysis can help game trailers spread

As we glide towards E3 season the gaming community is braced for a glut of trailers, announcements and other marketing gubbins. Some of these digital bids for your attention will sink with barely a retweet, but others will tear round the internet at high speed, passed from tweet to tweet, chucked onto Facebook feeds, dissected in subreddits and more. But how do companies navigate virality and use it to their advantage? That's where firms like Pulsar come in.

Marc Geffen, Pulsar's vice president of US strategy and research describes Pulsar as an audience intelligence company. "Ultimately, we help clients connect the dots between what their audience *says* on social media, how they *think* while conducting a search, and what they actually *do* on their website." This involves pulling data from social media, search, web analytics and AI-powered image analysis and being able to interpret it.

Some of the work Pulsar does for brands is covered by non-disclosure agreements so we can't name the company, but Geffen gives us an example of the work. Pulsar spent around nine months of research on the launch of a sequel title for a top publisher. They tracked social audience reactions at each stage, including the initial announcement, E3, console release and PC release.

The main aim was to figure out who was part of the conversation around the game, who was missing and why. A lot of it hinged around the resonance of the game's story and thus the age-old problem for sequels: how do you satisfy core fans and use the story to add richness and depth to a world they know while also appealing to new players who need the story to be approachable and for the concepts to be sticky?

To track that type of feedback Pulsar can follow various lines of enquiry. One example involves isolating all the conversations about storyline then drilling down into the ones where clear emotions and perceptions are revealed (it's confusing, it's delightful, it's underwhelming etc). From there they'd try to understand the type of persona each point of view was coming from. Once they had an accurate sense of which perceptions tied to which audience segments they could use those to create filters and apply those filters to the whole dataset.

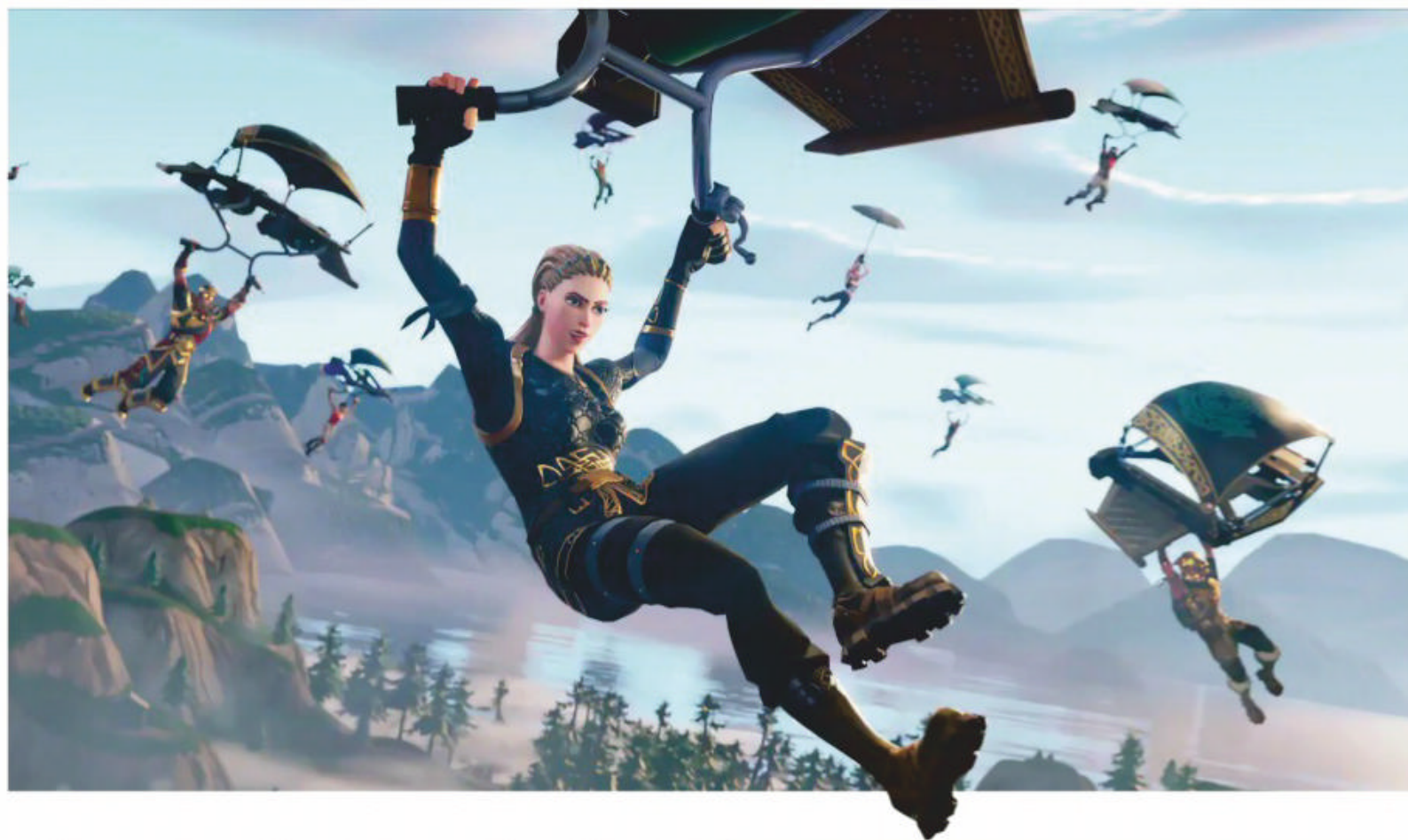
RESEARCHING REACTIONS

After the game's release the research continued, this time looking at critical feedback and issues being raised by the community. "In short, the brief was to understand how negative opinions from some core fans who were underwhelmed by the release diffused to the mainstream," says Geffen.



Virality study

Pulsar has identified two models of virality. There's the 'spike' where you get a sudden explosion of activity and a more gradual 'growth' pattern. Grower audiences tend to be more fragmented and need a push to artificially spread. Spikers are more cohesive but that means the info passes through them faster.



LEFT: Knowing how the *Fortnite* and *Black Ops 4* audiences intersect can help companies decide how to reach those players.

The team suspected that “certain Reddit threads were a kind of nucleus for harsh, meticulous feedback” but wanted to see how influential those threads actually were. It turned out that Reddit was indeed a key channel but, as Geffen puts it, “Not exactly in the way we thought.”

Reddit was bigger and more active than the client had anticipated – they had underestimated its importance relative to the “big four” social channels (Facebook, Twitter, Instagram and YouTube). But most of the heated Reddit topics weren’t seeping onto other platforms.

“In fact, we found that many of the key discussion topics we studied remained contained within Reddit, not bleeding out into Twitter or other places with any notable scale,” says Geffen. He adds that this isn’t to say Reddit is a closed-off channel, more that in gaming buzz terms it’s a self-sustaining ecosystem.

Having a detailed map of where your audience is and what they do when they’re there helps the people distributing games work out how best to spend their time and money. It can help them figure out how to seed their messages within communities, and how to target people at the intersection of several communities. As Geffen puts it, “The ideal scenario is to get [the different segments] talking and sharing with one another. Then you’ve got a much better chance at organic spread throughout the whole audience.”

Pulsar recently did a study of the trailer and release of *Fortnite Season 6* and compared it with *Call of Duty: Black Ops 4*. “We found an identical segment, of almost exactly the same size (26 per cent share), in both audiences. We called them *Fortnite* Fanboys, young guys who passively watch *Fortnite* gameplay and how-to videos via streams on Twitch and YouTube.”

BATTLE ROYALE IN EVERYTHING

Armed with that information a company can do several things. One is to seed *Black Ops 4* marketing in spaces *Fortnite* players frequent (or vice versa), another is to invest in partnerships with the other game’s influencers

WHERE ESPORTS FANS ARE

One Pulsar study breaks down where esports chat is happening online and how it differs from place to place:

1	2	3	4
TWITTER The dominant venue houses 42% of the chat around esports – it’s mainly about the latest news.	INSTAGRAM The place for 19% of the game talk and where you’ll most likely find esports memes and reactions.	TUMBLR The 17% of the chat that’s happening on Tumblr has a focus on big-picture league performance.	FORUMS Forums (which includes Reddit) account for 12% of the chat and lean towards post-match analysis.

and associated brands, using their clout to reach your own potential audience.

Geffen adds, “At a higher level, identifying and profiling that crossover audience might lead to other strategic moves. For example, is *BO4* attracting that audience because it emulates *Fortnite* in some way? Should future *CoD* releases borrow that design sensibility, or lean into battle royale mode? Or, perhaps the goal is not to ‘steal’ *Fortnite* players, but instead to satisfy their

appetite between new *Fortnite* seasons?”

We’ve focused on marketing and hype but it’s worth knowing that these insights can also affect the games themselves. Geffen notes that the extended life of a game is a perfect use case for the type of social data research the company does. They can track community responses in real time, comparing it to pre-release baselines and using that to offer insight into what’s working and what’s not. The data can thus also help with recommendations for developers ranging from fixing glitches to adding fan-favourite weapons and tweaking maps. ■

Philippa Warr

“IS *BO4* ATTRACTING THAT AUDIENCE BECAUSE IT EMULATES *FORTNITE* IN SOME WAY?”

In Focus

THE HIDDEN DETAILS OF DESIGN



HIDDEN DEPTHS

David Stevenson, lead artist at casual gaming specialist Big Fish, on how hidden object game scenarios are composed. *By Philippa Warr*

SETTING THE SCENE

1 The storyline and visual theme are set by the game designer and lead artist. The latter creates concept art and establishes key scenes. Then a hidden object artist creates scenes in keeping with those guidelines.

FINDING A HIDDEN OBJECT CAREER

2 Stevenson came to work on hidden object games via a friend. "After looking at some of my still life oil paintings, a friend at Big Fish thought I would be good at creating hidden object scenes," he explains.

AN OBJECT LESSON

3 "Each artist chooses which objects to hide in their scenes," says Stevenson when I ask about the exact inventory of an area. "Unless the game design requires a certain object. For example, like a set of keys a player may need to unlock a door."

ENCORE

4 Some scenes recur and artists need to keep them interesting. Techniques include adding "ghost object" collectibles which fade in and out of sight, or, in the case of close-up scenes, pieces of a whole object like a locket which players need to complete.

MIXING IT UP

5 Instead of a shopping list, some scenes ask you to find lots of the same thing like coins or flowers. One way to spice that up is to add a time limit but Stevenson adds, "Another fun trick is hiding objects with the same shape to one being collected."

PLAYING FAIR

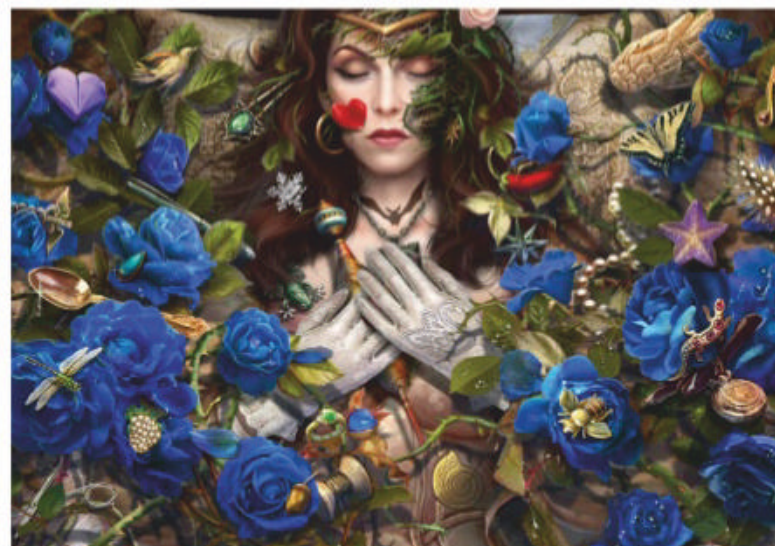
6 Fairness plays a part in positioning the objects. "We would consider it unfair to hide a dark object in a shadow or obscure too much of an item behind something," says Stevenson. The ideal reaction is: "Of course! Why didn't I see that before!"



LEFT: This scene is a spot-the-difference puzzle. You're looking for objects with the wrong reflections.

BELOW: More of a traditional hidden object scene, asking you to find hearts, a swan, a pepper and so on.

RIGHT: You may need to combine items to produce some of the hidden objects. Add a roll of film to the camera and press the button to break the flash and get a bulb.



SWAG HURTS

Why devs make merchandise and what it costs them. *By Xalavier Nelson Jr*

From the ‘feelies’ included in 90s adventure games, to the branded shirts on clearance at Hot Topic, merchandise (also known as ‘swag’) can sometimes feel as vital to gaming culture as the games themselves. With decades of iteration, it’s tempting to think that most of the issues associated with merchandise are now solved – making fiascos like the *Fallout 76* duffel bag recall even more egregious. What I instead discovered is a process still riddled with potential money pits and failure points.

“For many years we ran our own merchandise shop and shipped out orders ourselves,” says Kevin Simmons of Asymmetric, developers of browser classic *Kingdom of Loathing* and recent indie hit *West of Loathing*. “If you add up the cost of the materials, salary of the person handling the orders, and all the shipping, we actually lost money! The merchandise was meant as fan-service, and we kept prices as low as we could manage – T-shirts were \$15 including shipping within the US, for example.” They’ve since contracted merchandising to Topatoco, but tales of breaking glassware and other fulfilment nightmares are a surprisingly common tale during the shipping process.

“Generally speaking the hidden costs of swag are not in the production end,” says Chris Stewart, COO at Kerberos Productions. “Any nightmares you run into are in fulfilment, particularly shipping items overseas. Our current policy on large posters is ‘NEVER AGAIN’, but in general we’re wary of any overseas shipping without a local fulfilment partner to protect our fans from additional charges, like the VAT in Europe.” Spread across multiple original IPs including *Sword of the Stars* and *Kaiju-A-GoGo*, they’ve commissioned everything from bumper stickers to challenge coins. “We’ve taken some risks on making those items, but those risks were always mitigated by having a few

people who wanted them from the start and essentially pre-ordered them during the crowdfunding campaign,” Stewart says. “Some things that you’d think might be difficult were much easier than expected! Challenge coins

were remarkably painless, for example, and the current tech for producing multiple colours and finishes really blew us away. The thing about merch is that each item is a mini-project. You have costs associated with design, production and delivery. They tend to eat up your margins so much that it isn’t really a profitable avenue if you’re trying to raise funds for some other product like a videogame.”

Kitfox Games has produced a number of merchandise items – usually as a part of their crowdfunding campaigns. “When you’re a new company working on a new IP,” co-founder Tanya X

Short says, “it’s more costly because nobody trusts that your game will actually exist, and they have to cover their risks. Other than enamel pins, things haven’t really changed from our end, except that we’re becoming seen as more legitimate and our games as more prestigious to be associated with, so it’s easier to get merch contracts.”

With the viral success of *Boyfriend Dungeon*, Kitfox Games has found better merchandising deals than ever, including a partnership with IndieBox to create two-sided bladesona body pillows.

However, even studio stability and viral attention don’t guarantee a smooth production process.

BACK-AND-FORTH

The creators of free-to-play MMO *Transformice* struggled with the creation of plushies for their signature game. The process involved giving instructions to a factory located in China and neither party spoke the other’s language. “The prototypes were... hideous,” recalls co-CEO Mélanie Christin. “I would Photoshop the pictures they sent me to tell them what I wanted changed. And with each iteration, they would change something else I never asked for,” she says. “We worked it out eventually, but we were lucky to have our reseller as a negotiator and that our order would be big enough.” Plushies are one of the very few pieces of merchandise the studio created for sale, with the developers preferring to find success along other metrics. Giving away thousands of headbands with mouse ears on them during Japan Expo was put together fairly cheaply, for example, and had ripple effects on the studio’s visibility for years to come.

Despite the difficulties with creating swag, everyone I spoke to was enthusiastic about the merchandise they produced, even if it was being made at a loss. Merchandise isn’t just a source of bragging rights, it’s a tangible connection to worlds we can never visit. ■

XALAVIER NELSON JR
I’m a full-time game writer and narrative designer, with credits inside and out of gaming.





The quality of the merchandising deals offered to Kitfox Games has increased as the studio matures, and the viral success of *Boyfriend Dungeon* attracts mainstream attention.



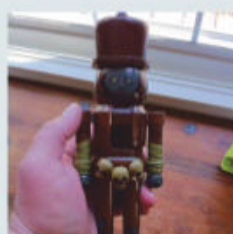
FAR LEFT: These *Sword of the Stars* challenge coins were a surprisingly easy success for Kerberos.

LEFT: Landing upon the final design (pictured here in a side-by-side view with a prototype) of the *Transformice* plushies took dozens of back-and-forth conversations across international boundaries.

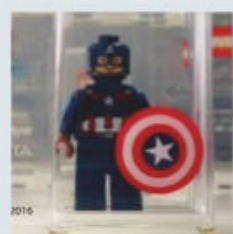
MAKER MEMENTOS *Sometimes, developers get exclusive swag. Here are a few prime examples:*



TELLTALE'S HYPERION SOCKS
Telltale developers who worked on *Tales From the Borderlands* received custom Hyperion socks styled like those of protagonist Rhys after release. Juan Vaca, one of those developers, still wears them on special occasions.



BULLETSTORM'S NUTCRACKER
Alexander Newcombe (former QA manager) shares a "Nutcracker" given to certain members of the *Bulletstorm* team after production was complete. Much like the game's sense of humour, it is alternately charming and horrifying.



LEGO TOMBSTONES
Developers of *Lego* games are given plastic bricks with a central figurine frozen inside; the title and platforms it launched on etched outside. Former *Traveller's Tales* designer Steven Thornton calls them "Tombstones".



METROID PRIME'S GUNSHIP
As a senior artist at Retro Studios, James H Dargie helped create the new look for Samus' signature ship seen in *Metroid Prime*. He received a discount on the model of his version, which he still owns.

DISCLAIMER: As a professional developer, I am on friendly and/or working terms with parties mentioned in this piece.

PREVIEW



Age of Wonders: Planetfall



NEED TO KNOW

RELEASE

August 6, 2019

DEVELOPER

Triumph Studios

PUBLISHER

Paradox Interactive

LINK

www.aow-planetfall.comAGE OF WONDERS:
PLANETFALLA weird sci-fi toolbox with
strong tactical battles

Picking a faction in a 4X game usually requires a lot of consideration. But this time I didn't even have to think about it. My options were restricted to Space Dwarves, Space Bugs, Space Americans or a group of stoic warrior women with an environmentalist streak who ride laser-packing dinosaurs. Was there really any choice?

The Amazons are clearly the best, but I'm probably not giving the rest a fair shake. Every faction has unique units, techs and a playstyle that makes them all tempting. The insectoid Kir'Ko, for instance, have a penchant for psychic trickery, taking over minds during the turn-based tactical battles. But – laser dinosaurs!

My army of nature-loving warriors was led by Sappho Tori, a premade character that I tweaked only a little bit, providing her a dinosaur mount straight away. Named characters like Sappho are special heroic units that lead armies, annex territory and influence battles with powerful abilities. When they level up, new skills can be unlocked, letting you change them into a legendary sniper or giving them the ability to drive a huge tank.

Before I could send out this mighty army of Amazons and stampeding dinosaurs, I still had one more faction-defining decision to make: what secret technology was I going to pick? These special projects dole out flashy abilities that can be used in combat and on the map, as well as giving you a new path to victory by letting you construct a doomsday weapon. I went with the biological nightmare that is the xenoplague, which, I would quickly discover, is really gross.

In *Planetfall*, years of isolation have ended and the various human, post-human and alien factions of the universe

are once again travelling across space, settling on forgotten worlds and competing over territory. Despite the stellar setting, *Planetfall* is not a space 4X, as each game takes place on a single, randomly generated world. Sappho and her pals landed in an appropriately green sector of the planet, surrounded by flora.

The map is a real treat. It's a randomly-generated jigsaw full of sectors with meandering borders and special traits. The result, at least using the default map settings, is a world that's got diversions and shiny distractions at every turn, egging you on to explore further, but still manages to look coherent. Within a short march from my colony, I found a mighty river of magma, a dead city spread out across an entire sector and even a civilisation of intelligent fungi.

It didn't take me long to get into trouble. As well as the other factions to contend with, marauding aliens wander the map in search of fights. Like any good tourist, I was heading over to the aforementioned river of magma to soak in the sights, but I was waylaid by a group of angry plants before I could get there.

EXPLOIT WEAKNESSES

Fights take place on a separate tactical map informed by the sector you're in, so I found myself in a dense jungle – the enemy's home turf. *Age of Wonders 3*'s tactical maps were more like conventional Medieval battlefields, broad and flat, but *Planetfall*'s are much more elaborate and put a greater emphasis on cover and line of sight. There's still more than a hint of the older games' combat systems, but the sci-fi conceit and abundance of firearms means that, at times, it's equally evocative of squad-based tactics games like *XCOM*, though fights are much shorter.

Even with dinosaurs, it pays to take a step back and assess the enemy. I absolutely did not do that, but it's still a great idea. Enemies have various resistances and weaknesses, all handy things to know if you're planning on killing

PLAYED
ITEVEN WITH DINOSAURS, IT
PAYS TO TAKE A STEP BACK
AND ASSESS THE ENEMY

Age of Wonders: Planetfall

Orbital laser strikes are good for the environment.



Every unit can be upgraded, but leaders get the best gear.

» them. Quite a few of my units had more than one ability, thankfully, giving my army a bit of flexibility straight away. If an enemy was weak against melee attacks, I could send my pterodactyl in with its claws. If they were weak against fire, it could shoot them with lasers instead.

Operations really saved my bacon. These replace *Age of Wonders 3*'s spells and function pretty similarly. You research new operations and then cast them in battle or on the campaign map, buffing units and colonies while harming enemies. I was rather partial to the good old orbital laser, but my alien plague came in pretty handy, too. It poisons enemies and spawns a horrible little parasite who can join your army after the battle. In only a handful of turns, I already had several fun super weapons to play around with.

For reaching the magma river and surviving a few battles – just – I rewarded my army with an upgrade. Every unit can be augmented with mods, giving them new characteristics and abilities, like a jetpack that makes the unit more mobile in combat. Thanks to the xenoplague secret technology, I was able to research plague pods, giving my units the ability to lob toxic projectiles at enemies.

Leaders can be enhanced even more with weapons, gear and mounts. For my basic rangers, it was an obvious upgrade, but the mod system appears to be as much about specialising, not just making your units better.

Planetfall seems to have hit the sweet spot when it comes to unit customisation. Instead of making lots of tiny, incremental tweaks, you're adding a small number of mods that can significantly change the unit. It's hard to get excited about a two per cent damage boost, but the ability to fly and a new weapon with lots of handy effects? That's a bit more exciting.

As well as exploring, I was expanding my borders. Expansion in *Planetfall* is methodical, and instead of growing your borders through influence or culture, you annex sectors, specialising them for things like industry and agriculture and then exploiting what you find there via your colony. A higher population and additional colonies let you control more sectors and increase your reach. With the

Amazon empire growing, it was inevitable that I'd bump into one of the other factions that had made the world its home.

I'd already met the Growth, a plant-based NPC faction. Marauding plants might have beaten me up a few times, but the Growth was actually very friendly. NPC factions are indigenous and aren't competing in the 4X competition. You can wipe them out if you're feeling particularly cruel, but since the Amazons seemed pretty in tune with nature, I opted to help them instead.

NPC factions dole out quests, rewarding you with resources and favour. The latter fuels diplomacy and can be spent on demands, like asking an NPC faction to leave a sector so you can take it over, or buying unique units and mods. In the Growth's fungal city, I purchased some bees, as you do.

This way you're not locked into your faction's army. Through diplomacy and trade, you can field whatever you want. And if you prefer to fight, you can always go and conquer a settlement and use their buildings to make new troops, helpfully shoring up any gaps in your own faction's roster. I only bought those bees, however, and while they were very good bees, they weren't exactly game-changers. Good mascots, though.

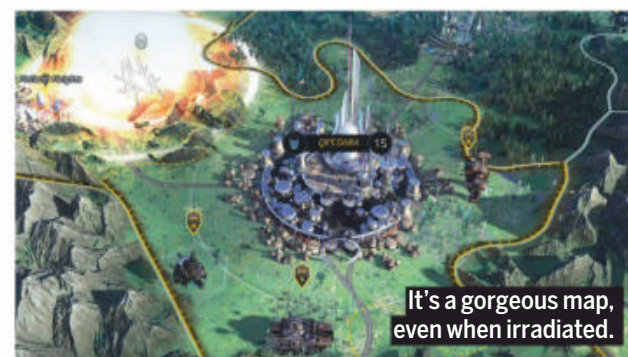
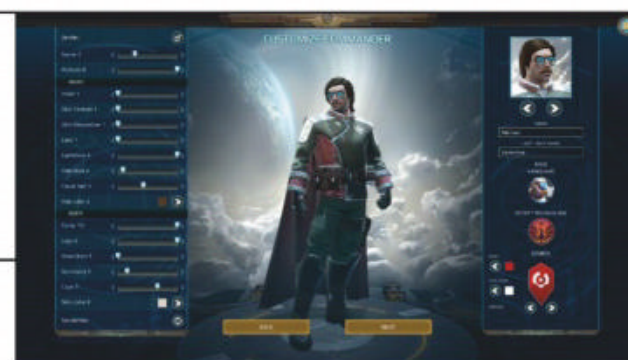
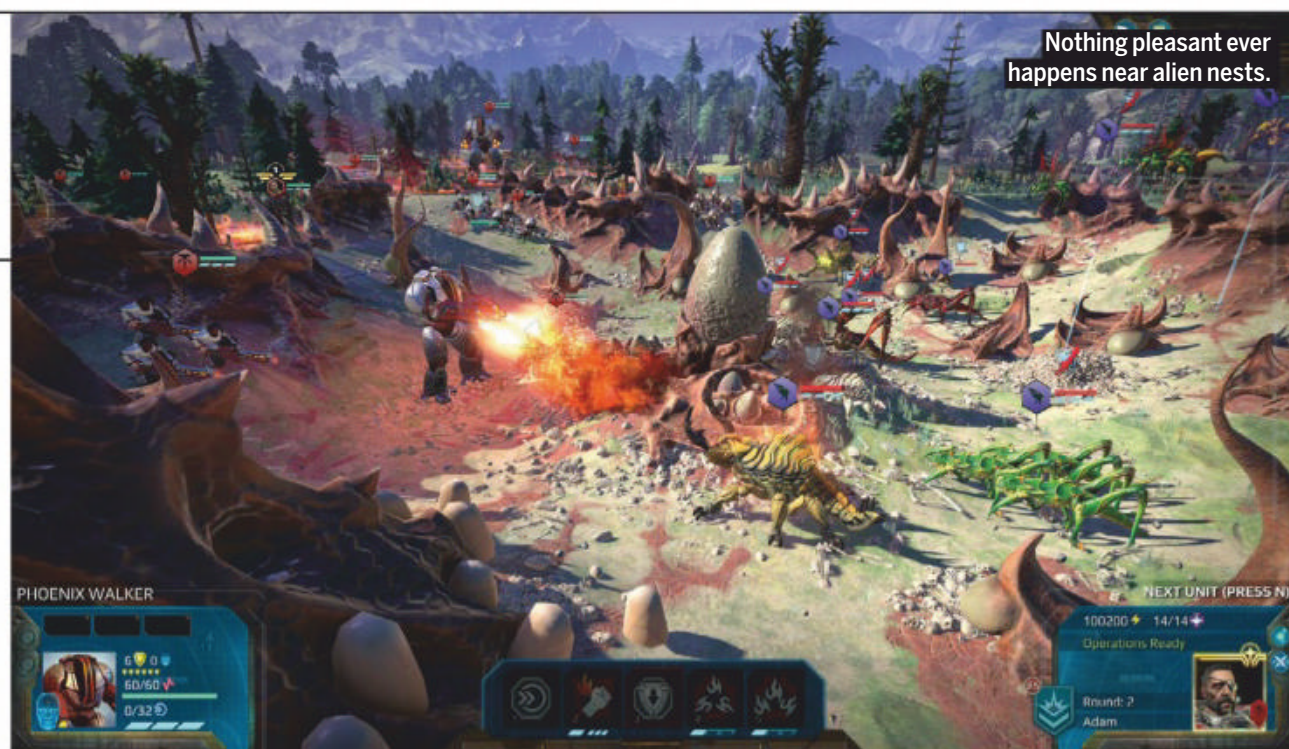
TALK IT OUT

Diplomacy between playable factions is pretty familiar. You make pacts, deals and trade via a diplomacy screen. They're a chatty bunch, always eager to give you a call with an update on your relationship status. If only this happened in reality. "Hey mate, just wanted to let you know that we're still work acquaintances."

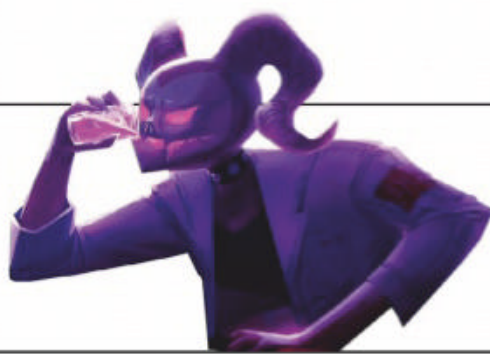
Given there were also wandering packs of NPC aliens looking for a fight, I didn't fancy adding a war on top of that, so our relationships stayed pretty friendly. With more time and colliding borders, I'm sure that would have changed. I encountered a few visual bugs, and parts of the UI are sorely lacking clarity, but *Age of Wonders: Planetfall* otherwise makes a very good first impression. Like its predecessor, a lot of the systems serve to prop up the engaging tactical brawls, but it's a broader 4X with more attention given to the empire management and diplomatic side of things. Notably, this doesn't seem to have a negative effect on the pace, at least in the early stage of the game, which moves along briskly despite all the additional distractions.

Fraser Brown

LEADERS CAN BE ENHANCED EVEN MORE WITH WEAPONS, GEAR AND MOUNTS



Afterparty



Lola and Milo feel like spiritual siblings to the teens of *Oxenfree*.

NEED TO KNOW

RELEASE
2019

DEVELOPER
Night School Studio

PUBLISHER
Night School Studio

LINK
afterpartygame.com

AFTERPARTY

Explore the mean streets of Hell as two dead best friends

It's been three years since Night School Studio released its bewitching coming-of-age debut *Oxenfree*. Its next game, *Afterparty*, looks even stranger and more surreal. We meet Lola and Milo, two recently deceased best friends who wind up in Hell. Their only chance of escape? Beating the Devil and his horde of demons in a drinking contest.

Yes, you read that right. Satan has a taste for booze and demons like to party just as much as teenagers do. It sounds like Disneyland for burnouts, where lurid cocktails replace rainbows and monsters prowl the streets instead of cute animals. Fitting considering the inspiration that had been brewing for a number of months before development began.

"The core concept came from a series of conversations that Adam [*Afterparty* and *Oxenfree* writer] and I had while walking around a massive cemetery across the street from our office," says Sean Krankel, co-founder of Night School Studio. "It's where Michael Jackson, Walt Disney, Carrie Fisher, and Lucille Ball are buried, and we used to wander around the grounds to get our creative gears going. Weird, I know."

At first Krankel and his team wanted to make a game about being in a bar "because bars in games and real life are pretty rad". But they began to wonder, would you play as a bartender or a drinker? Well, of course a drinker. And would it take place in one bar or many? It had to be a pub crawl. And would you be

FIRST
LOOK

trying to outdrink anyone? Who would be the craziest person to topple? In the graveyard it hit the two friends – Satan!

Yet Night School's depiction of Hell is far from the traditional ones we've seen in art and literature, where a labyrinth of flames promises endless suffering for its eternal guests. Here it's a modern cityscape of winding streets and grotty bars, brought to life in pops of romantic neon like the colours you find in bottles of strawberry liqueur and crystallised violets.

"We knew fairly early that we wanted move past everyone's stereotypical vision of Hell," says Krankel. "We wanted to draw from a wider variety of cultural and geographical reference points, to create a new, nightlife-fuelled, hybrid underworld. So if an artist or writer wanted to have a district inspired by Shibuya, or another with cobblestone streets and cute pubs, let's make room for it! We're creating [our] own version of Hell, one that we can think of as distinctly Night School."

ONE FOR THE ROAD

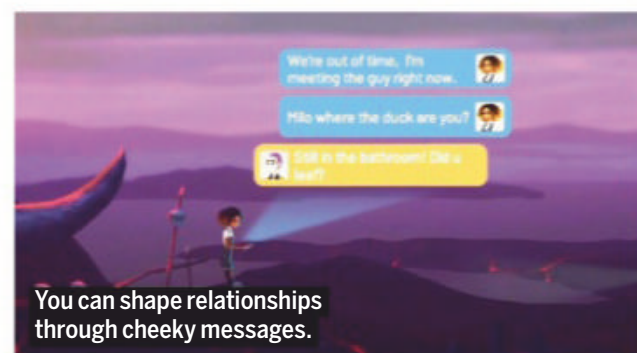
While the characters and dialogue options are very similar to *Oxenfree*, there are so many new features for you to look forward to. For example, every bar you visit in Hell sells a variety of drinks, and every drink unlocks new dialogue trees. Want to be flirty? Aggressive? Sloppy, funny? *Afterparty*'s bars are littered with options. While you're at it you can play beer pong, dance, and take part in drinking minigames with the assorted demons you meet.

Yet the story still feels cut from the same cloth as *Oxenfree*. What is it about young people that resonate so strongly with Night School?

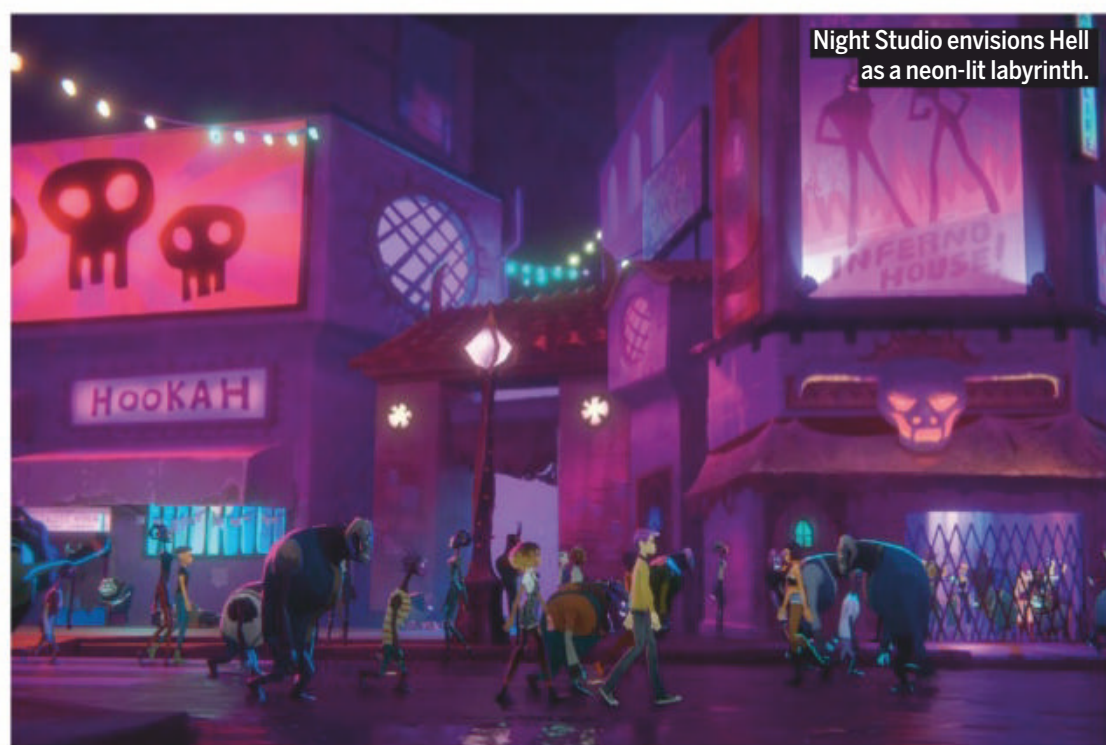
"Our games are inhabited by people who are hopefully very relatable, but dealing with circumstances that are wholly unfamiliar," explains Krankel. "Being a teenager or in your early 20s is a magical, messy moment because huge pieces of your core personality are formed, yet so much of who you yearn to grow into is a mystery. So as you hack through all that stuff, you do it with friends. It's a hazy, perfect window of time where love, trust, and personal goals are still malleable, and it makes for a great canvas for interactive stories."

Kimberley Ballard

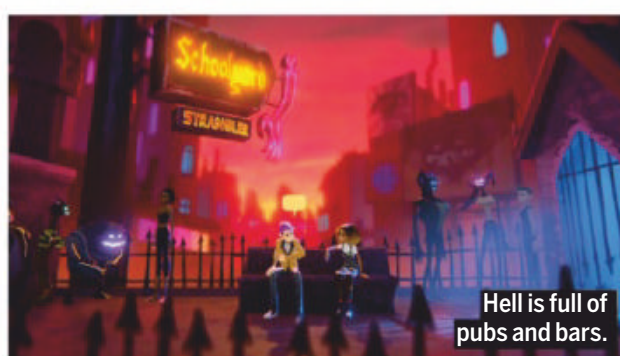
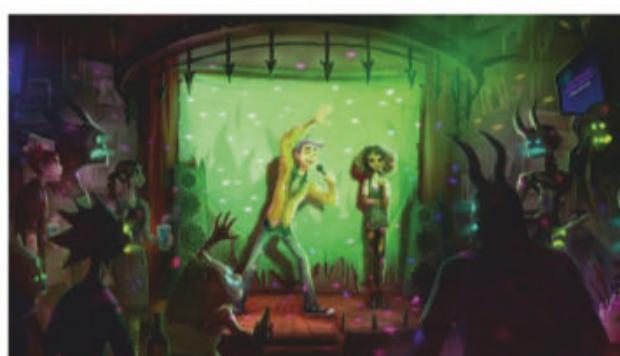
TAKE PART IN DRINKING MINIGAMES WITH THE ASSORTED DEMONS YOU MEET



You can shape relationships through cheeky messages.



Night Studio envisions Hell as a neon-lit labyrinth.



Hell is full of pubs and bars.

PREVIEW

Divinity: Fallen Heroes



NEED TO KNOW

RELEASE
2019

DEVELOPER
Larian Studios

PUBLISHER
In-house

LINK
www.larian.com

DIVINITY: FALLEN HEROES

A fantasy tactics game set in the world of *Divinity: Original Sin*

Late last year, Larian – the Belgian developer behind the Divinity series – said it was moving on to “new stuff” after the success of our 2017 Game of the Year, *Divinity: Original Sin 2*. And now we know what that project is – an RPG-infused turn-based tactics game called *Divinity: Fallen Heroes* which continues the story of *Original Sin 2*.

The focus in this game will be on squad-based strategic combat, but it'll retain some of the role-playing elements that define the *Divinity* games, namely talking to people, character relationships, customisation, and choices that alter the course of the story. For many *Divinity* fans this will be a surprising change of direction, even though Larian has made some strategy games in the past. I talked to the studio's founder, Swen Vincke, about what we can expect from the upcoming *Fallen Heroes*.

“We're huge fans of tactics games,” he says. “*Into the Breach* was one of our favourite games of last year. When we were making *Original Sin 2* we had a lot of discussions about things that we could change in the combat, but we didn't have time. So we thought, what if we make a tactics game?”

“But in our game, story will define everything that happens in the missions, and everything that happens in the missions will define the story. And from this, *Fallen Heroes* was born.”

Set a few years after *Original Sin 2*, *Fallen Heroes* sees the return of Lucian the Divine, who tasks you, a commander, with arresting the half-demon Malady.

“She has stolen powerful doomsday weapons from the Divine Order, and they're afraid she'll use them in a fit of anger,” says Vincke. “But things are not what they seem.”

FIRST LOOK

“It is a story in its own right,” he adds when I ask if being familiar with the series is a requirement to enjoy *Fallen Heroes*. “People who haven't played *Divinity* will be able to enjoy it. But we really wanted to continue with the characters we'd developed in *Original Sin 2*. We like them, fans like them. Fans will love that you can now control Malady in battle. If you played *Original Sin 2* it'll feel like coming home. But if you haven't, you'll meet a whole bunch of interesting characters.”

BRIEF ENCOUNTER

Larian is aiming for each hand-crafted mission in *Fallen Heroes* to be around 20-30 minutes long, but there'll be some downtime as well. “Between missions you're aboard the Lady Vengeance and here you'll meet the heroes from *Original Sin 2*, as well as some new characters,” says Vincke. “You'll talk to them and make choices that will define what happens in the missions, and what missions you'll be able to access. There's real choice here. You can also upgrade technology, unlock new heroes, and buy consumables to take into missions.”

“You have multiple rooms, and in these rooms different characters will appear depending on what's happening in the story. You can interact with them using the conversation system from *Original Sin 2*. Some characters can even leave you if they don't agree with what you're doing. They may also join you in combat, bringing unique abilities with them, depending on choices you make in the story.”

I ask Vincke to explain how combat in *Fallen Heroes* compares to *Original Sin 2*. “The changes are different enough that it's going to feel fresh. On the other hand it's familiar enough that you'll understand what your tactical opportunities are.”

“You'll have to adapt your thinking a little bit. The biggest change is that it's now squad-based. We have around 200 skills and over 30 unit types, and that creates a lot of combinations and possibilities on the battlefield.”

IT'LL RETAIN SOME OF THE ROLE-PLAYING ELEMENTS THAT DEFINE THE *DIVINITY* GAMES



You can't explore the world freely, but the scale is huge.



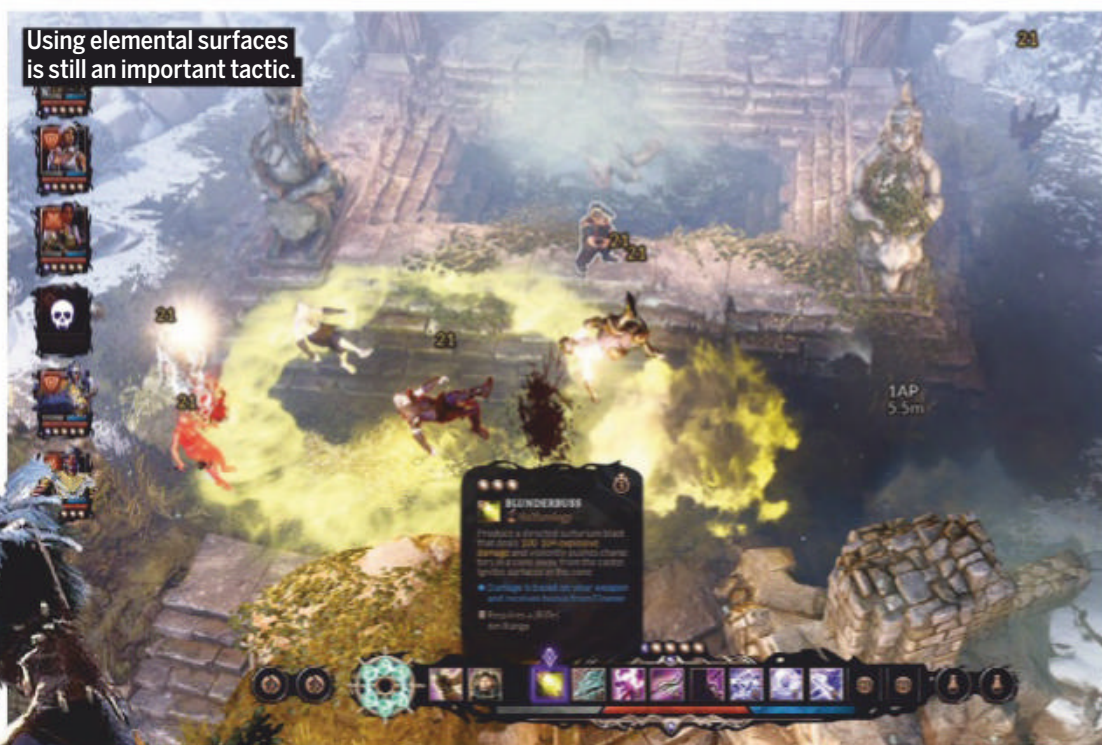
PREVIEW

Divinity: Fallen Heroes

Between missions, choices you make steer the story.



Using elemental surfaces is still an important tactic.





➤ Larian is also making no bones about the fact that *Fallen Heroes* will be, by design, a challenging game. Like the Infinity Engine RPGs that inspired the *Original Sin* series, you'll need to make intelligent use of your abilities and second-guess the AI to survive a fight. "Frankly, the game has been designed to be quite difficult," says Vincke. "You'll often be left in situations with little HP and only a few units left, so it's quite intense. Even I suffer when I play it, and that's on the normal difficulty setting. You can lower it, of course. I should say that."

For fans of *Original Sin 2*, the chance to hang out with the Red Prince, Ifan, Beast, and the rest of the gang will be hard to resist, even if it's not in the form of a typical RPG. "Narratively, it feels really good to see these heroes back," says Vincke. "But this isn't a massive world you're going to go out and explore. There are set missions, and each has its own objectives. But we have tried to maintain the diversity you find in our RPGs. We never want you to do the same thing twice."

Fallen Heroes likely won't be as long as the gargantuan *Original Sin 2*, but Larian is aiming for a lot of replay value. The path each player takes through the game will be different depending on choices made, the order missions are completed in, and so on. "The critical path through the game is 22 out of 60 missions, which gives you an idea of how many permutations there are," says Vincke. "But it is more contained, with a clearer structure of acts. I think we're offering a higher level of freedom here than you'll find in other tactics games."

DRAMATIC ENTRANCE

Larian is also aiming for a feeling of drama in its battles. "It's a lot more cinematic than *Original Sin 2* was," says Vincke. "When you start a mission the camera will move around and show you the action. One of the decisions you have to make is when you find a city under attack by a group called the Bloodless."

"You decide whether you're going to relieve Lucian, which you should be, or save a bunch of people stuck on the harbour trying to escape. If you help

Lucian, the camera will show you the city under siege. People falling off buildings, explosions everywhere, characters yelling at each other. It sets the mood."

Surfaces also play a big part in *Fallen Heroes*' combat – areas of the battlefield with different elemental properties you can exploit. "We added a new type called sulphurium," explains Vincke.

"It's triggered by kinetic energy, and it causes an explosion with a shockwave. So if you shoot a crossbow at it while you're on top of it, you can rocket jump. And if you time it right you can jump across multiple surfaces. If an enemy is nearby they'll be thrown back by the impact as you jump. It's a really cool systemic addition to the combat."

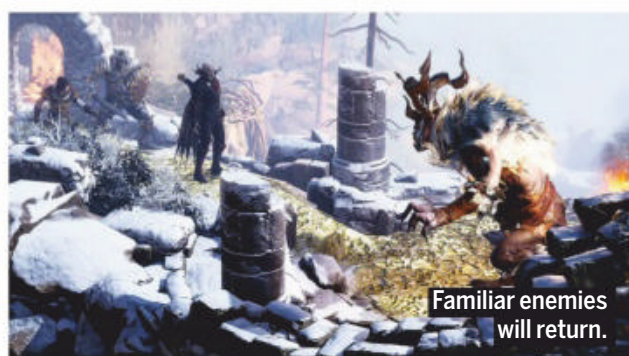
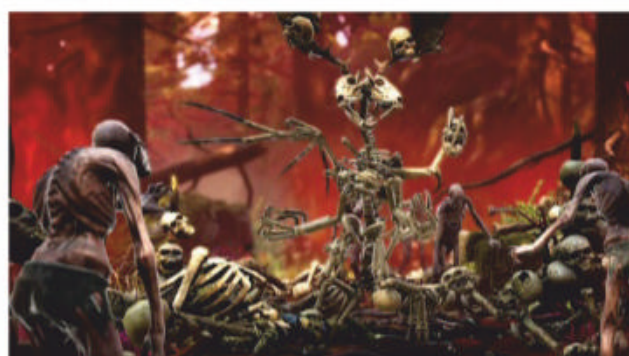
Giving an example of how this new surface can also work against you Vincke says, "Last night when I was playing I used Phoenix Dive to get on a roof where an enemy with a blunderbuss was positioned. I had the intention of killing him with one shot. But it was his turn and he shot me off the roof. I landed on some sulphurium that had spilled out of a barrel, was thrown away, and took double damage. That was the intention of the AI and it felt awesome. It also sucked because I lost my unit. But those are the kinds of combinations you can pull off. And all the surface types from *Divinity 2* are in the game too."

"Combat-wise, we're giving you a much better toolbox. When you start on a mission, your most important decision is who comes with you."

"This decides which tools you can use on the battlefield. Then you have to decide which consumables and artefacts to take. These starting parameters can make every fight feel different, and can actually decide whether you'll make it through the mission or not. This, plus AI which is capable of adapting to how you play and the surface experimentation, makes it very unpredictable."

Fallen Heroes is not what I expected the next thing from Larian to be, especially after the enormous popularity of the *Original Sin* games. But it's nice to see the studio attempting something different, and a chance for *Original Sin 2* fans to continue the story – albeit in a very different form. The idea of bringing RPG storytelling and choices to a tactics game is an intriguing one, and I can't wait to see if Larian pulls it off. The combat from the *Divinity* games is a deep well to pull from, and should be a powerful starting point for a squad-based tactics game.

Andy Kelly



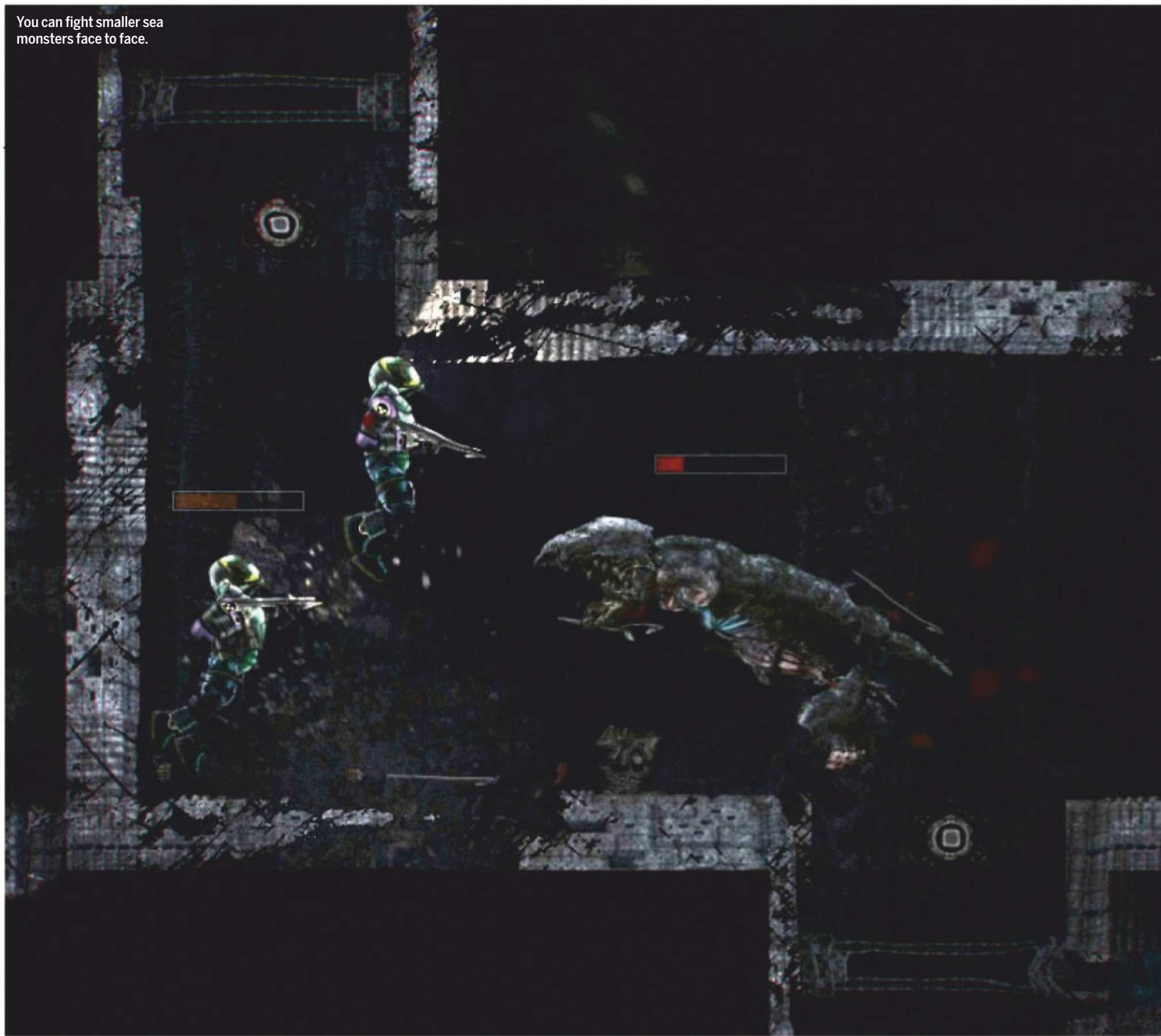
Familiar enemies will return.

"NARRATIVELY, IT FEELS REALLY GOOD TO SEE THESE HEROES BACK"

PREVIEW

Barotrauma

You can fight smaller sea monsters face to face.



An overview of one of the subs you can command.





NEED TO KNOW

RELEASE
Spring 2019

DEVELOPER
FakeFish, Undertow

PUBLISHER
Daedalic

LINK
www.barotraumagame.com

BAROTRAUMA

Explore an alien ocean in a rickety old submarine

You're probably wondering what the hell 'barotrauma' means. In simple terms, it refers to injuries caused by changes in water or air pressure. For divers that can mean burst eardrums or drowning. The latter is what *Barotrauma* is mostly concerned with, being a game set in a leaky submarine where a watery death awaits the crew if they don't work together.

Set in an alien ocean on Europa, one of Jupiter's moons, *Barotrauma* is reminiscent of *FTL*, but on a much larger scale. You view your sub from the side and can freely wander around it as one of several classes including captain, engineer, mechanic, and medic. There are dozens of interaction points around the sub such as lockers, water pumps, engines, and other mechanical stuff that keeps the thing running.

And, inevitably, this stuff is gonna break. Europa's oceans are filled with alien horrors, and a shunt or a chomp from one of these massive, toothy beasts will damage the sub, letting water in or causing machinery to malfunction. This is when the crew has to spring to action, plugging leaks, sealing bulkheads, pumping water out and repairing things. But that's easier said than done with up to 16 players per submarine online.

You can play with bots, but multiplayer is where you'll probably have the most fun in *Barotrauma*. The scrabble to stop water rushing into part of the sub, trying to get everyone to work together, is massively

chaotic. You'll have to work together to seal off parts of the submarine that are filling with water. Sometimes this involves pulling on a diving suit and swimming down into the flooded depths of the ship. And with every gallon of water that spills in, the likelihood of sinking to the depths and being crushed by the pressure rises.

If you're joined by 15 friends, communicating with voice chat, patiently following the orders of the captain, you might be alright. But when you're online, with strangers, you never know what people's intentions are. Someone might get a kick out of sealing the engineer in a flooding room and drowning them, meaning no one will have the skills necessary to repair the nuclear reactor. Someone might just steer the submarine into a rock, for a laugh. This kind of grieving might be annoying, but it'll be certain to generate some great stories.

Any player can attempt any role on the sub, but if their class isn't dedicated to it, it'll be slower and more likely to fail. If the medic is trying to repair an engine, they might be able to muddle through it, but much less efficiently than an engineer.

It's not all terrifying sea monsters and leaky hulls, though. There's exploration to be done in this ocean, and your crew will have to work together to steer the ship and adjust the ballast to ascend and descend.

FIRST LOOK

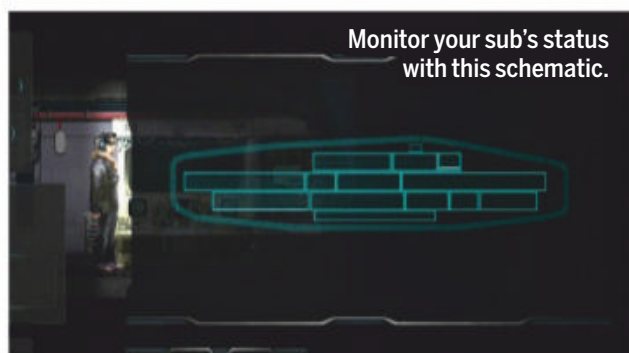
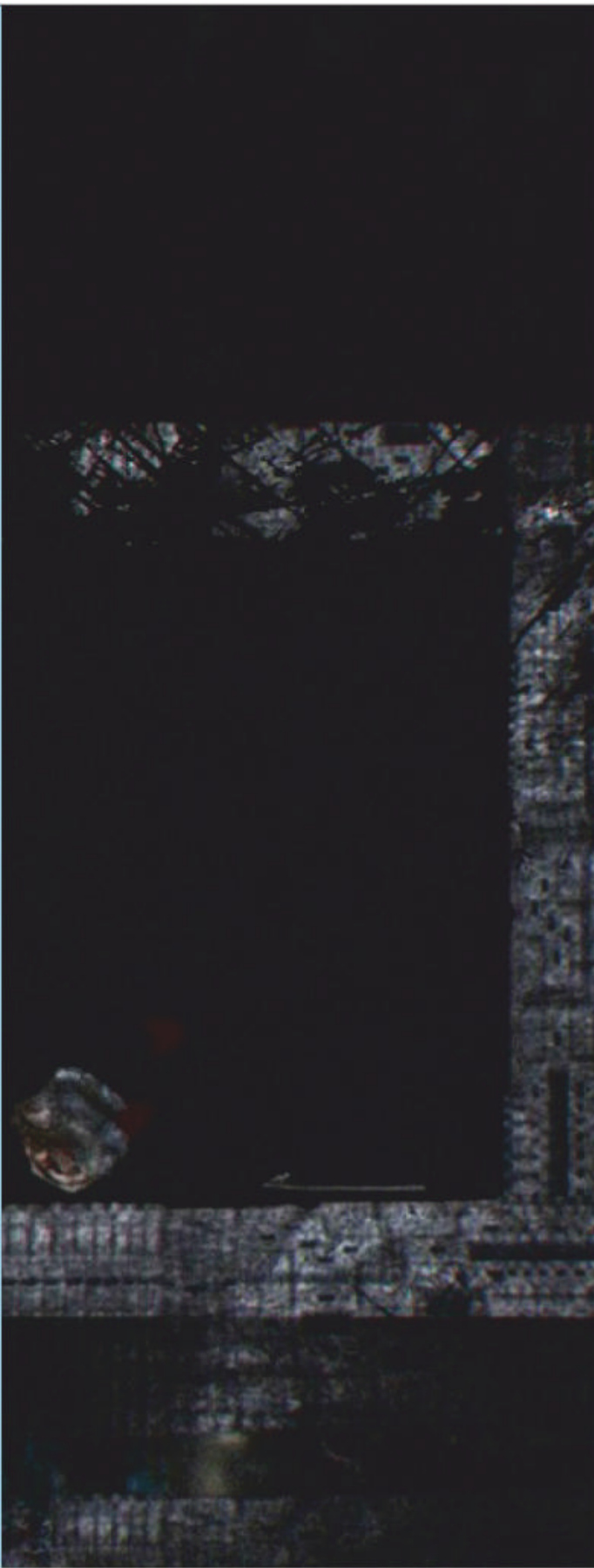
RETURN FIRE

If the writhing tentacles of one of these Lovecraftian creatures do get a little too close for comfort, you can equip your submarine with weapons systems including turrets and sonar. These can be controlled by players and it's possible to repel an intruding alien if you work together. But attacking an enemy will just make it mad, and make your sub a target.

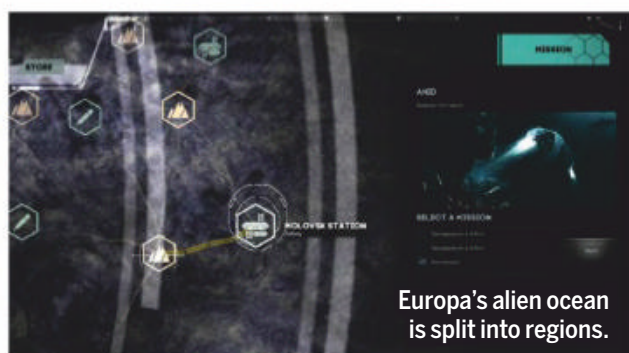
Barotrauma comes with a suite of creation tools too, letting you create your own submarines and sea monsters and share them on Steam. There's also basic scripting in there, similar to redstone in Minecraft, which you can use to create mechanisms and triggers. *Barotrauma* sounds like a game tailored towards player creation and community, and if it takes off once it enters Early Access in spring, it could be home to some amazing stories.

Andy Kelly

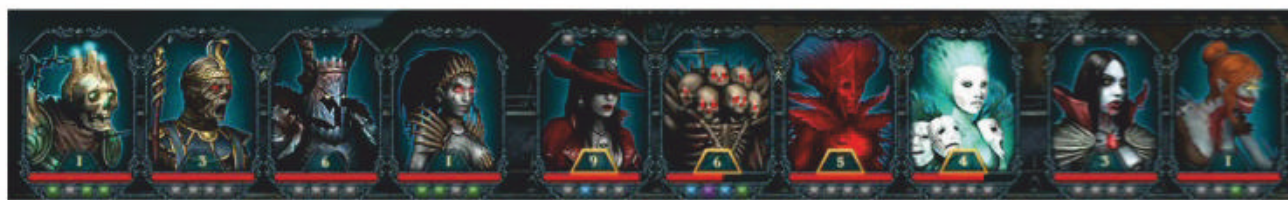
SOMEONE MIGHT JUST STEER THE SUBMARINE INTO A ROCK, FOR A LAUGH



Monitor your sub's status with this schematic.



Europa's alien ocean is split into regions.

Iratus: Lord of the Dead

NEED TO KNOW

RELEASE
2019DEVELOPER
UnfrozenPUBLISHER
DaedalicLINK
www.iratus.org

IRATUS: LORD OF THE DEAD

A roguelike where you play as the bad guy

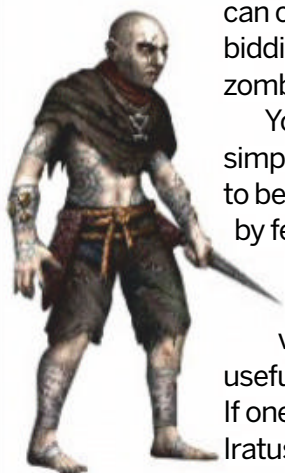
Imagine *Darkest Dungeon*, but instead of playing as a group of adventurers battling terrifying monsters, it's the other way around. In this turn-based strategy game you play as Iratus, a very emo necromancer who loves killing people, stealing their body parts, and creating monsters from them.

The *Darkest Dungeon* influence is clear from the off, with its flat, side-on perspective, punishing difficulty, and deep tactical combat. Russian developer Unfrozen wears its influences proudly on its sleeve. But visually it has more in common with a Blizzard game – a dark fantasy world with wispy magic, chunky monsters, and an ornate, decorative interface.

Iratus, being a Dark Lord, doesn't get his own hands dirty. Instead he sends minions to do his bidding. When you kill a human they drop body parts as a kind of disgusting loot: limbs, organs, and other squishy bits. And from these you can conjure up foul beasts to do your bidding, including banshees, dark knights, zombies, phantoms, and vampires.

You create these creatures with a simple crafting interface, and it's possible to beef up a newly created minion's power by feeding it brains – one of the most valuable things an enemy can drop.

Each monster has a skill tree with a variety of powers, buffs, and other useful abilities, but they're also disposable. If one dies it's not the end of the world – Iratus can just create another to replace it.



IT'S POSSIBLE TO BEEF UP A NEWLY CREATED MINION'S POWER BY FEEDING IT BRAINS

PLAYED IT

In practice this is a fairly simple turn-based strategy game, with a back-and-forth flow reminiscent of an old *Final Fantasy* game or, more recently, *Slay the Spire*. But the sheer volume of abilities is where the real depth lies.

There are hundreds of ways a combat encounter can play out and various different types of damage to deal including, my favourite, stress.

Some monsters such as the banshee, a screeching, white-eyed spectre in a ragged wedding dress, aren't particularly powerful, but have powers that will sap an enemy's sanity. Deal enough stress damage and it's likely your target will go mad and begin attacking his own allies.

EARLY GRAVE

Between battles you can retreat to Iratus' spooky, moonlit graveyard and give injured minions time to heal. He's not *totally* evil. You can also use resources harvested in combat to build new structures, in turn unlocking more exotic monsters to fight with. With each successful battle you move deeper into a dungeon, leading towards a final clash with a boss, which Unfrozen says could take up to ten hours.

It's a roguelike, so if you have no minions left and no body parts to make new ones, it's game over.

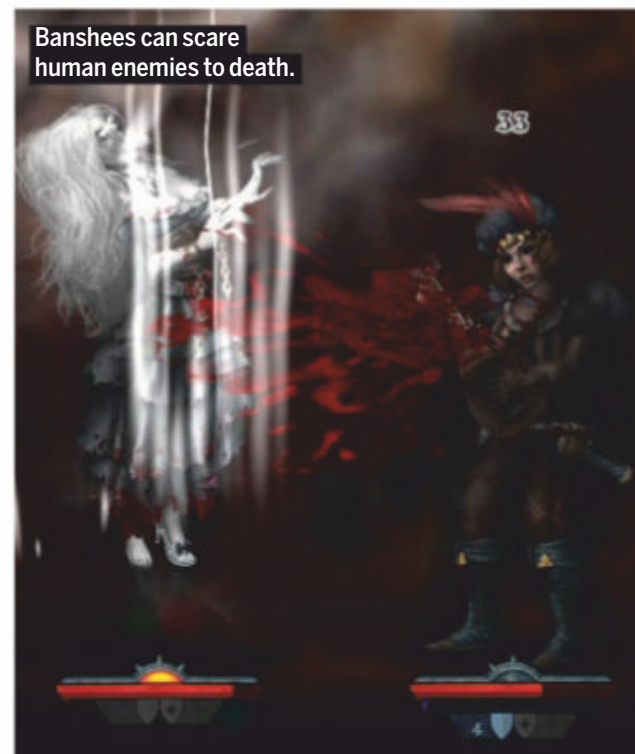
The subject matter is pretty dark, but this is an enjoyably tongue-in-cheek game. Iratus is voiced by Stephan Weyte, who PC gamers of a certain age will remember as *Blood* protagonist Caleb, and he chews the scenery magnificently. He's one of those pantomime villains who really revels in being evil, and the chance to play as the bad guy is always welcome in a game like this. But what's his grand motivation? His mission? I asked Unfrozen and the answer was simple: *death*.

Iratus: Lord of the Dead doesn't have much in the way of new ideas. It's a collection of systems borrowed from a bunch of successful PC games, and quite blatant about it. But thanks to some lavish artwork, a feeling of polish, and that monster creation system, I'm more intrigued to play the final game that I thought I would be. But if it's a game with a gentle difficulty curve you're after, Iratus may not be the emo necromancer for you.

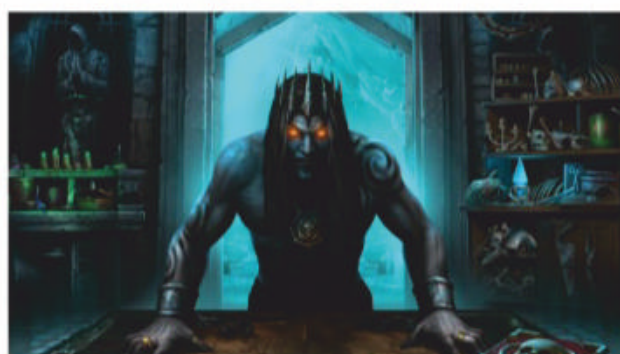
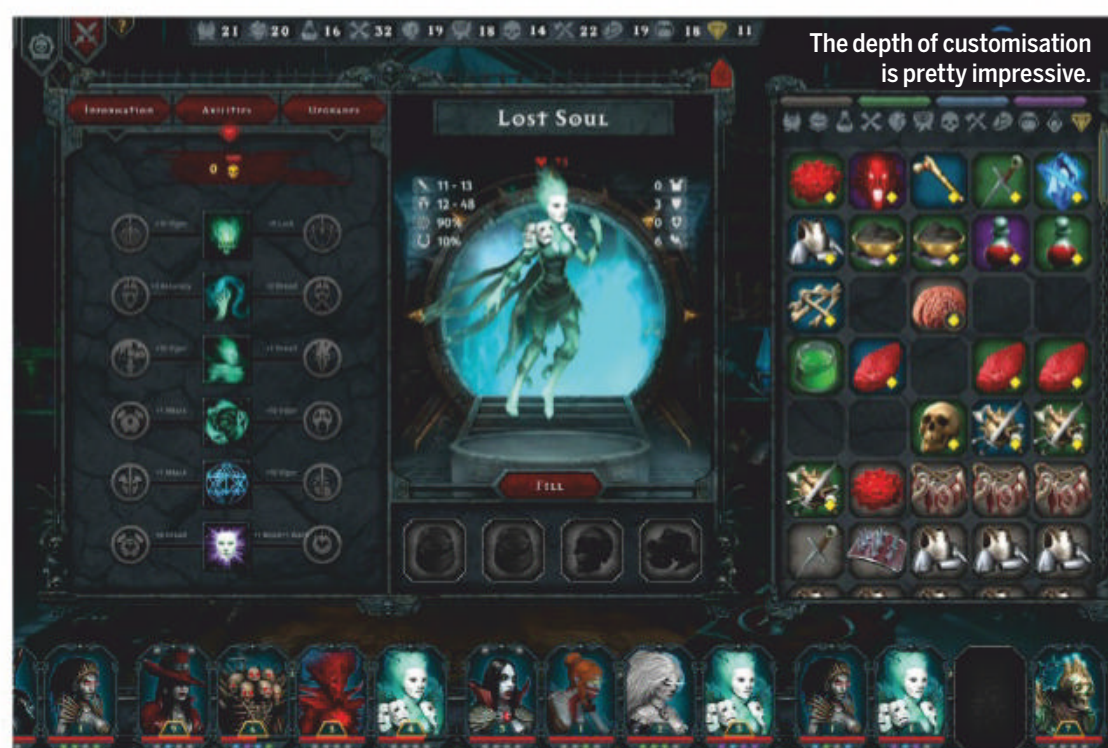
Andy Kelly



Banshees can scare human enemies to death.



Iratus: Lord of the Dead



PC Specialist recommends Windows



Windows 10

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15.6" Matte Full HD IPS Screen
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COVER FEATURE

Bloodlines 2

RESURR



After 15 years in the grave, **BLOODLINES 2** brings the vampire-RPG back from the dead, and it's bigger, darker, and more ambitious than ever.

By Rick Lane

ECTION

Here are three words I never thought I'd write: *Bloodlines* is back. It's been almost 15 years since Troika

Games' vampire RPG first launched, winning and breaking hearts in equal measure. *Bloodlines* remains one of the most stylish and intricate first-person RPGs ever made, with a truly remarkable amount of depth and dynamism baked into its dark and seedy Los Angeles. But *Bloodlines*' premature launch also meant it was riddled with bugs. After years of community support, it is still a challenging game to grapple with.

Bloodlines is one of the great 'what ifs' of PC gaming. What if Troika had been given another six months to sharpen *Bloodlines*' fangs? What if the game hadn't launched on the same day as *Half-Life 2*? What if the likes of Leonard Boyarsky and Tim Cain and Brian Mitsoda had been given a shot at a sequel, to capitalise on all the lessons they'd learned?

We'll never know the answers to those first two questions. But we will, finally, get an answer to the third. "If they'd asked me to do another one back then I would have done it," says Brian Mitsoda, lead narrative designer on *Bloodlines* and *Bloodlines 2*. "I think one of the best things about the World of Darkness IP is that there are – just in one city alone

Bloodlines 2

» – hundreds of stories. There's always more stories to be told."

Mitsoda is working with Hardsuit Labs, the developer and creative lead behind *Bloodlines 2*. The game is being published by Paradox Interactive, which acquired White Wolf in 2015, and thus owns the World of Darkness IP. Indeed, the acquisition of White Wolf by Paradox was the trigger for *Bloodlines 2*'s development. In an unusual turn of events, HSL began working on *Bloodlines 2* the moment they heard about the acquisition, pitching the idea directly to Paradox.

"When we got wind of Paradox acquiring the World of Darkness IP, within about ten minutes I had my creative director Ka'ai Cluney come into my office and say 'We need to contact Paradox. Do you know anybody there, because we need to pitch them a game?'," says Andy Kipling, the CEO and co-founder of Hardsuit Labs. "We spent November and December and January putting together a pitch that we could show them at DICE. My assumption, for what it's worth, was Paradox had a clear plan in place and that we would be coming in from out of the fold to try and make a hail-Mary pass."

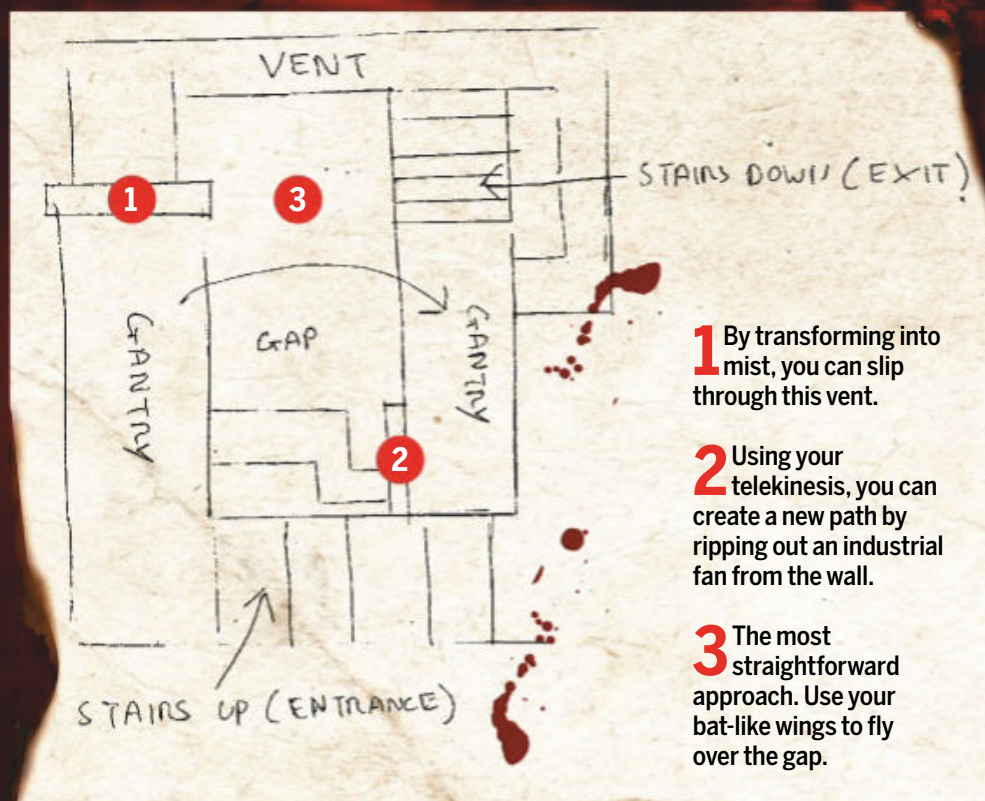
Kipling's assumption was correct. Paradox did have plans for a *Bloodlines 2*. "But it was also something we considered quite valuable and that we didn't want to give out of our hands too easily," says Florian Schwarzer, product manager at Paradox Interactive.

Unsurprisingly, Paradox was sceptical about Hardsuit's plans. "I [went] into that first Skype meeting with them expecting to watch a

BELOW: *Bloodlines 2* is set in Seattle. The first hub surrounds Pioneer Square.

POWERING THROUGH

Levels are designed to be navigated in multiple ways



1 By transforming into mist, you can slip through this vent.

2 Using your telekinesis, you can create a new path by ripping out an industrial fan from the wall.

3 The most straightforward approach. Use your bat-like wings to fly over the gap.

burial," Schwarzer says. Instead, Schwarzer was thrilled by the presentation, to the point where they immediately began discussing pre-production. "This was very much Hardsuit Labs taking a tremendous risk and getting us to the point where we made a decision for them. Nothing more, nothing less."

It's a risk Paradox is confident has paid off. At the company's HQ in Stockholm, I'm presented a 30-minute in-game demo, controlled by *Bloodlines 2*'s lead producer Christian Schlütter. It's the first time

Paradox has shown the game to anyone outside the company or Hardsuit Labs, and the production team is still uncomfortable saying the game's name out loud, often referring to *Bloodlines 2* by its codename – Project Frasier.

BLOODY BACKSTORY

Bloodlines 2 opens with a direct call-back to the original. Your character – whose appearance and backstory can be customised before the game starts – awakens on the floor of what appears to be a courthouse. It transpires you're both a witness to and a suspect of a Mass Embrace – a supernatural terror attack in which a group of humans, including you, were assaulted on the street and illegally turned into vampires. Representatives from multiple factions, including the Camarilla, are present to watch your trial and execution. After recounting events from your perspective, however, a fire rages through the building, enabling your escape.

Bloodlines 2 is built in Unreal 4, and plays mostly from a first-person perspective. The escape from the burning courthouse doubles as the tutorial. Unlike the first *Bloodlines*, you don't pick your clan during character creation. Instead, all players start-out as a "thin-blood", a weaker type of vampire with a unique set of powers.

Hardsuit explains that this was a practical choice both narratively and



mechanically. “There’s a lot of political problems with thin-bloods and being a thin-blood is gonna make it more of a challenge to exist in the World of Darkness. That’s a good place to start in an RPG,” Mitsoda explains. Kipling adds that starting as a non-clan vampire gives players a chance to “understand what a clan means so they can make more informed choices, rather than making a decision up-front and getting 30 minutes into the game and going, ‘Damn I wish I’d chosen something else’”.

Players will get to choose a clan later in the game. Paradox isn’t prepared to reveal which clans are present. But they confirm there will be five playable clans in the game. This is slightly fewer than *Bloodlines 1*, but Hardsuit and Paradox want to focus on making each clan distinct in their playstyle.

“We wanted to pick those clans that deliver a clear player-fantasy,” says Schlütter. “If I’m someone who just likes to punch people in the face, we have that clan for you. If I’m someone that ... in a normal roleplaying game, would play a wizard or something, we also have a clan for that.” Moreover, your choice of clan will provide access to unique abilities and also unique locations in the game. “If you want to see truly everything of the game, you will want to play it with different clans,” Schwarzer confirms.

While clan-specifics are still under-wraps, the demo revealed some of the powers you’ll wield as a thin-blood. Thin-bloods can

MAIN: This fellow grills you in the introduction.

IT TRANSPIRES YOU’RE BOTH
A WITNESS TO AND A
SUSPECT OF A MASS EMBRACE



» grow bat-like wings, transform into mist, and also wield objects from a distance via telekinesis. At the end of the tutorial, players will have to choose one of these powers, which has its own skill-subset.

Environments, meanwhile, are built so that that you can navigate them in multiple ways. Alongside the original *Bloodlines*, Paradox cites games like *System Shock*, *Deus Ex*, and *Dishonored* as other primary inspirations. “These are games that give you freedom to explore the world but also to tackle different situations in the way that you as a player want,” Schlütter says. “We bring your playstyle to the table, that is something that of course, we need to deliver with *Bloodlines 2*.”

Eventually, your vampire escapes from the courthouse basement into what appears to be a ruined underground city. *Bloodlines 2* is set in contemporary Seattle, and the ruins belong to old Seattle, which was almost literally paved over after a fire gutted the city in 1889. In your role as a vampire, Seattle’s underground will play a significant part, although Paradox and Hardsuit won’t specify how just yet. Hardsuit is happy to discuss the reason for choosing Seattle as the setting, however. “One, we live here, which makes it a lot easier to gather reference,” Mitsoda says. “Two, the biggest thing about choosing Seattle as a location is it’s under-utilised as a setting.”

VAMPIRIFICATION

Like other west-coast US cities, Seattle is undergoing a period of radical and controversial transformation, largely due to the presence of huge corporations such as Amazon. Hence, themes such as gentrification and the divide between the old and the new faces of Seattle will form key parts of the story.

“One thing that we have in the city is this kind of identity crisis. You’ve got how Seattle has been over the last 100 years, and how it is changing due to the tech side and the money side,” Mitsoda explains. “We have billion-dollar companies, trillion-dollar companies. And of

ABOVE: Hardsuit Labs has plenty of experience with Unreal Engine 4.

MAIN: As in the first game, public displays of power will violate the Masquerade.

course wherever there’s power and money you’re gonna get vampires. It’s like leaving cheese out.”

We first glimpse Seattle as we emerge on the waterfront beneath Pier 57, its iconic Ferris-wheel illuminated in neon-lights (*Bloodlines 2*’s Seattle exists in perpetual night, much like the first game’s LA). Moving toward the pier, our vampire encounters a man holding a mobile phone, which begins to ring. On the other end of the line is a mysterious woman, who instructs us on the basics of feeding.

This works much like the original *Bloodlines*, with a sweet-spot between getting the optimum amount of blood and accidentally killing your victim, losing humanity in the process. We’re also instructed to meet someone up on the pier. As with *Bloodlines 1*, the game is fully voiced, and while neither Paradox nor Hardsuit will

spill details, Mitsoda boasts that *Bloodlines 2*’s voice cast is “maybe the best of any game”.

Inside a building on the pier, our vampire is attacked by a group of thugs. Combat, particularly melee combat, was one of the weakest elements of the original *Bloodlines*. Hardsuit wants to make certain this is addressed in *Bloodlines 2*. “Ka’ai’s been working on a first-person melee combat system for years,” says Russ Nelson, CTO and co-founder of Hardsuit. “We knew we needed to have that up-close and personal feeling when you’re in a fight.”

Unlike the original, both melee and ranged combat are viewed from first-person. It’s a highly improvisational system, with your vampire using his fists, objects in the environment and his powers to gain an edge. For example, your thin-blood can yank firearms out of enemy

LET THE RIGHT ONES IN

Characters who may return in Bloodlines 2



SMILING JACK

The smart-mouth vamp who shows you the ropes. Smiling Jack seems like an obvious choice to bring back from *Bloodlines*.



JEANETTE/THERESE

We’d be very surprised if Jeanette and her alter-ego Therese didn’t crop up to mess with your head at some point.



PRINCE LACROIX

Lacroix is killed at the end of *Bloodlines*, so this one seems a stretch. But these vampires are hardy creatures...

hands using telekinesis, or fly into the air to literally get the drop on an opponent. Also players will be able to equip two melee and two ranged weapons at any a time. But as Schwarzer says, "How you and your equipment looks at the end of that fight might be quite a bit different."

However you approach combat, Hardsuit is keen to ensure that it communicates your supernatural power, speed, and resilience. Even as a thin-blood you can comfortably tear through an armed gang of humans using only your fists.

At a higher level, you'll be able to enact devastating special moves, for which the camera will zoom out into third-person. You won't only be fighting humans, there will be plenty of tougher enemies in *Bloodlines 2*, including numerous types of vampire.

RIGHT: As a vampire, you're pretty handy in a fight.

FAR RIGHT: I've heard of trial by fire, but come on.



After the fight, we encounter a man who turns out to be a fellow thin-blood created in the Mass Embrace. We don't get much time to compare notes, however, as he is immediately killed from behind by another vampire who whispers "You're not on my list" to us before vanishing. One of the side-quests in *Bloodlines 2* involves looking for the remaining vampires created in the Mass Embrace – known as the "Unsanctioned Seven". Schlütter notes this quest will explore, "What happens to a completely normal human, with all their wants and needs and life situations, when they suddenly get turned into a vampire."

After the incident at the pier, for example, we travel to our first

safehouse, an apartment sub-let by a reclusive vampire named Dale, who is our guide into the world of *Bloodlines 2* much like Smiling Jack was in the original. He's also the first character you talk to at any length. As you'd expect, dialogue plays a huge role in *Bloodlines 2*, with your skills and abilities affecting your conversation options. Mitsoda was also keen to retain the noir-ish vibe and black humour of *Bloodlines 1*.

"This game has just been incredibly fun to write. The characters are some of my favourite characters that I've ever done for a game, and Paradox has given me a lot of freedom, which I'm not used to from the publisher side, just kind of going, 'What do you want to do?'" Mitsoda won't go into specifics, but >>

**UNLIKE THE ORIGINAL, BOTH MELEE
AND RANGED COMBAT ARE
VIEWED FROM FIRST-PERSON**

Bloodlines 2

» Paradox hints that amongst those characters will be familiar faces from *Bloodlines 1*.

After giving us the basics, Dale lets us into the apartment. Inside is a pinboard covered with notes and documents, put up by the fledgling vamp we just saw murdered as he tried to figure out who was responsible for his transformation. *Bloodlines 2*'s approach to quest design is closer in spirit to the original than more modern RPGs, in the sense that quests won't be flagged by NPCs with exclamation marks floating above their heads. You'll need to explore to uncover new stories and adventures.

Among the documentation, for example, is a missing cat poster. As you explore Seattle, you'll find greater concentrations of missing cat posters in certain areas and, if you take the time to investigate the phenomenon, you can eventually discover where all the cats have gone, and why they have disappeared...

While some quest lines can be stumbled upon, others may arise depending on how you play *Bloodlines 2*. Unlike the first game, there are multiple factions alongside the Camarilla that you can work for. "You'll have a different experience based on who you're working with, and you can even, you know, insult factions to the point where they won't work with you anymore," he says. "You can really do a number on your reputation in this game," Mitsoda explains.

CODE OF CONDUCT

A crucial part of this reputation is the Masquerade, the code of conduct to which all vampires are expected to adhere. The key word here is 'expected'. You can violate the



Masquerade in small ways, such as being spotted feeding by another human, or bigger ways, like going on a public rampage. Both will have ramifications for you and the city. People will be less likely to go out at night, meaning you'll have fewer bodies to feed on, while repeated violations may cause Seattle's chief vampire, Prince Cross, to send supernatural enforcers after you.

Schlütter demonstrates this at the end of the demo by venturing into the first of the game's multiple city-hubs, Pioneer Square (*Bloodlines 2* follows the hub-and-spoke design of the original). He drops from a rooftop and publicly feeds on a civilian, which causes the police to start chasing him and triggers a Masquerade violation.

Importantly, the Masquerade isn't a one-way descent into chaos.

ABOVE: Now *that's* what I call hub-and-spoke design.

MAIN: Mitsoda says the characters are among the best he's written.

You can restore your Masquerade rating to a certain extent. One way to do this is to join Prince Cross' clean-up crew, which clears up the messes left behind by Masquerade-violating vampires.

The clean-up crew exemplifies the weirdness Mitsoda and Hardsuit are hoping to carry over from *Bloodlines* to the sequel. The organisation is run by a man named Bart, who has seen every kind of horror imaginable and is completely numb to it. An early quest involves clearing the mess left behind after a disastrous romantic entanglement between a vampire and a human. "If someone exploded in a small hotel room, that's what that would look like," Schlütter explains. "You're there to just pick up the pieces. Literally, the pieces. And Bart just comments on whatever is there, eating his noodle-soup."

Hardsuit Labs want players to explore *Bloodlines* organically. This extends beyond how players find quests, to how they solve them. In the early game, your choice of character background will impact upon your experience. If you choose Police Officer, for example, then should you need to visit the police station, you don't have to find a back entrance and sneak around, you can just walk through the front. But even this comes with complications. "Your colleague will come and say 'Hey where have you been the last two weeks? Social security has covered for you, but you need to get back to work'," Schlütter says.

It all sounds enormously ambitious. There are many other systems and ideas explained that I've

GUESS THE CLANS!

Five clans that might be a good fit for *Bloodlines 2*



BRUJAH

Brujah basically live to punch people. Since *BL2* puts considerable emphasis on punching, this seems like an obvious choice for inclusion here.



MALKAVIAN

Certifiably insane, the Malkavian's unique dialogue choices made them one of *Bloodlines*' most distinctive classes. We'd be surprised not to see them in *BL2*.



NOSFERATU

The appearance of the Nosferatu means they violate the Masquerade by being seen. Given the focus on unique play-styles, it seems likely *BL2* will include a stealth class.



TREMERE

Paradox explicitly mentioned a mage-like clan. The Tremere are masters of blood magic, so it's likely we'll see them causing some havoc in *Bloodlines 2*.



VENTURE

Venture are able to dominate conversations through sheer force of will. This makes them an ideal class for players who like to talk their way out of situations.

HARDSUIT LABS WANT PLAYERS TO EXPLORE BLOODLINES ORGANICALLY

barely touched upon. Schwarzer states that Hardsuit Labs “set out to provide as many active unlocks as possible during your progression system” while the developers point out there will be extensive customisation options that let you enrobe your vampire however you like. Plus, there’s the new Resonance system, which gives each NPC’s blood a different ‘flavour’ based on their emotional state. Feeding from someone who is angry, for example, will provide a short-term melee damage buff, while repeatedly feeding on angry people will let you unlock a permanent passive bonus.

At this point, it’s worth repeating the ambition of the original *Bloodlines* was as much a curse as it was a blessing. Since *Bloodlines 2* aims to take those ideas even further, it’s natural for any excitement to be mingled with a little apprehension. But there are some key differences between the two projects. *Bloodlines 1* was launched on an experimental engine the developers were grappling

with for the first time, whereas Hardsuit Labs has plenty of experience working with Unreal 4. In addition, everyone on the team is keenly aware of the mistakes *Bloodlines* made. “Identifying what worked well in the first one and then what didn’t, and either addressing those or avoiding those, was definitely a key part of that approach,” Kipling observes.

SINK YOUR TEETH IN

Lastly, there’s the publisher. *Bloodlines 2* represents a watershed moment in Paradox’s history. It’s a follow-up to one of PC-gaming’s most treasured cult classics, and a big-budget production in a genre that isn’t the company’s standard fare. Ebba Ljungerud, Paradox CEO, sums up *Bloodlines 2*’s significance to the company. “There is so much love for *Bloodlines 1*. So there’s an enormous amount of excitement of just doing something in this world,” she says. “But it has to be really great, because otherwise it’s never going to fly.” ■



ABOVE: Melee combat looks much improved.

RIGHT: Seattle’s iconic Pier 57.



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FEATURE

Forza Motorsport

FIN

The secrets behind the exquisite
handling in **FORZA MOTORSPORT**.

By Andy Kelly

TU

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Back in 2002 a small team of developers decided they wanted to create the most cutting edge driving simulation possible. “We were going to learn about cars and work with manufacturers,” says Dan Greenawalt, a member of that ten-person team and now creative director of the *Forza* series. “And we studied books including *Race Car Vehicle Dynamics* by Bill and Doug Milliken.”

WE

Forza Motorsport

» Books like this, explains Greenawalt, are the foundation of rigid body physics simulation, which is the basis for every kind of driving-based sim, from videogames to the bespoke F1 simulators used by McLaren and Ferrari. “We started from that same foundation, but we also wanted to make a game that anyone could play.”

Greenawalt has been working on driving games for most of his career, from *Project Gotham Racing* to *Midtown Madness*. To make the driving in those games fun developers would go into the base physics layer of the game and adjust it. “But when we were prototyping *Forza* we didn’t think you had to do anything to that base layer,” he says. “We could just add things on top.”

During testing, Greenawalt noticed people liked to tap the analogue stick of the controller in the opposite direction of the turn to incrementally adjust their angle. “If you go full opposite lock with the steering wheel every half second like this, the car is gonna be out of control,” he says. “So we put a buffer between the controller and the physics layer.” This buffer compensates for the player tapping the stick, ensuring the car doesn’t spin out when they do.

This design philosophy extended to assists; options that make the game easier to play, such as automatically braking the appropriate amount at a turn. “Some of our assists are based on real-world cars,” says Greenawalt. “Today, a Toyota Camry or a Honda Civic is probably over 200 horsepower, which is how powerful a top of the range Ferrari was back in the 1960s. But they’re totally controllable because of the assists, and we believed this would work the same way in our simulation.”

That early prototype eventually evolved into 2005’s acclaimed *Forza Motorsport*, an Xbox exclusive that ultimately became one of Microsoft’s flagship franchises. But it wasn’t until 2017, with *Forza Motorsport 7*, that it finally made its debut on PC, along with the spin-off *Horizon* series. Over the years the game has changed in a number of ways, but the core driving physics that underpin everything are still based on the design philosophy established by that original prototype – and Greenawalt and his team have never stopped refining it.

Over the years Turn 10 have conducted research projects in collaboration with car and parts manufacturers to reveal more about how their products behave on the track. “We’ve worked with partners such as Calspan, Pirelli, Audi, and McLaren,” says Greenawalt, “and through them we’ve learned new things about physics that aren’t in those reference books.”

“Nobody else is looking into this level of simulation. Even the F1 simulators are researching one car, not the broader set of physics required to make all cars.”

“We commission these research projects and it makes our simulation better every time,” he adds. “So when you’re driving a car in *Forza Horizon* or *Forza Motorsport*, you’re driving a physics engine that has over a decade’s worth of research and work put into it, with some of the top manufacturers in the world.”

HEAVY LOAD

One of the most satisfying, but difficult to quantify, aspects of *Forza* is the feeling of *weight* you get when you drive one of its cars. The coders at Washington-based developer Turn

BOTTOM: There are over a thousand cars to choose from across the series, all with individually tuned handling.

MAIN: Whether you’re in a hatchback or a monstrous F1 car, every vehicle in the series feels unique to drive.

10 are somehow able to take a light-touch interaction, nudging a stick on a controller, and make it feel like you’re moving a heavy object around a track. I ask Greenawalt how they create this illusion.

“In physics we have a thing called the moment of inertia,” he explains after warning me that he can talk about this stuff for hours. “When a skater is spinning they spin quickly when their arms are close to their body, but slow down when their arms are outstretched. Their weight didn’t change, but the *distribution* of their weight changed, and that determines how quickly they spin.”

“Cars are heavy objects, and the longer the car is, the heavier it is on its outside axis, determining whether they feel light or heavy.”

The traditional method of making cars feel weighty in driving games involves adding to the moment of inertia. A larger moment of inertia means the object is more resistant to changes in its motion. “But that can make the car feel like a battleship, understeering more than it should,” says Greenawalt.

“Most cars understeer naturally with how they’re set up on the suspension, but this larger



SCENIC ROUTE *How Forza Motorsport has evolved over the years*



FORZA MOTORSPORT 2005

With over 200 lovingly rendered cars, real-world courses, and some, at the time, very impressive visuals, the first *Forza* made a big impact.



FORZA MOTORSPORT 2 2007

In the sequel the damage model and simulation physics were overhauled, making for much more thrilling, dynamic, and realistic races.



FORZA MOTORSPORT 3 2009

In the third game your car could now roll over, and a variety of new disciplines were added including stock car, drag, and SUV races.



FORZA MOTORSPORT 4 2011

This sequel saw the introduction of the Autovista mode, which lets you explore and interact with highly detailed models of some of the game's cars.



FORZA MOTORSPORT 5 2013

The fifth game massively improved the presentation of the series, giving it a cinematic, high-end feel, focusing on the emotion of its driving.



FORZA MOTORSPORT 6 2015

This introduced Drivatars – rival AI racers based on your Xbox friends and their driving habits. They're now an important staple of the series.



FORZA MOTORSPORT 7 2017

The series made its long-awaited Windows debut, with beautiful dynamic weather that can quickly change the mood and feel of a race in real-time.

***“WE ALSO WANTED TO MAKE
A GAME THAT ANYONE
COULD PLAY”***

FRIEND ZONE *The social future of Forza*

"I love being part of car culture," says Dan Greenawalt when I ask him about the future of the *Forza* series. "I don't go to car shows just to see the hot cars, I go to socialise with other people who love cars as much as I do. I like to be with my tribe, and with stuff like the concert in *Fortnite*, games are becoming a tribal hangout.

I love that *Horizon* is exploring that, with people hanging out and competing online. And with *Motorsport* we have esports, which is another way of connecting. In the future we'll be exploring these concepts, looking at communities and finding out a way to turn that into similar experiences in our games."



***"WE SEND EXTENSIVE
DATA REQUESTS TO
THE MANUFACTURERS"***



» moment of inertia really makes them understeer like crazy. And this makes things like drifting difficult, because you can't recover very well."

But when designing *Forza*, Greenawalt and his team decided that the moment of inertia was sacred and should never be touched. "To make our cars feel controllable and heavy, we have two main strategies. One is the buffer we put on the analogue stick. Depending on how quickly you move the stick, and how much you move it, you'll never get your full input immediately.

"We tune this based on how we've seen players play. People generally return to centre quicker than they go out from the centre, so we have unique buffers tuned in there.

"The other strategy is having clamps and scales on how much yaw, which is the torque of the car, can be applied to the spinning skater.

Using these clamps, we can slow a car

BOTTOM: Lavishly detailed interiors like this are an example of how deep *Forza's* detail goes.

MAIN: Developer Turn 10 works with the world's best car and parts manufacturers.

down without changing the moment of inertia. When you play with simulation steering you turn this feature off, as well as a lot of the buffers, but even I have trouble playing *Forza* like this with a [gamepad's] thumbstick."

I've never driven a Lamborghini Sesto Elemento or an Acura NSX, but what I love about *Forza* is how it makes me feel like I have. I ask Greenawalt how Turn 10 translates the feeling of driving a real car to its digital counterpart. "It all starts with data, data, data," he says.

"We send extensive data requests to the manufacturers. But sometimes they don't know what we need to know about the car, so we go and do our own research on the components that go into it.

"The transmission on a Mustang is made by Tremec, so we'll go to them and find out about the inertia on the gears and the weight of the gearbox, rather than going to Ford.

"Our goal is to have future proof data, and the simulation will catch up with this perfect data and become better as a result."

MEASURED RESPONSE

There are at least a thousand cars in the general *Forza* library, and Turn 10 has researched as many of them as possible, taking them apart and measuring the components. But what if they can't get access to a car? "If you think about a car from the 1960s, where there's only three of them and they cost \$30 million, the owners aren't gonna let us take their car apart and measure every bit with calipers," says Greenawalt. "I mean, we'd like to. If you drive your car up here, we will disassemble it and measure it. But with a 1965 Ferrari GTO that's much harder to do."

Instead the designers at Turn 10 will research other cars with the same components, and if there's something they can't measure they'll make an educated guess and fill in the blanks. "It's like Jurassic Park," explains Greenawalt. "Filling in the DNA with other creatures. We want our data to be as accurate as possible and if there's guesstimate data, we'll mark it in the system so if we ever have access to that car in the future we can replace it with the real data."

But cars are more than data, right? When you drive one, you feel something. I ask Greenawalt how Turn 10 captures the essence of a car as well as the cold, hard facts. "If we get the physics absolutely right, the emotion will come out of it," he says. "A car doesn't have any real emotion. It has beautiful design, but that's the rendering. The curve of a Ferrari with its Pantone red. That creates an emotional response. But the way it performs? That's physics. So instead of trying to hand-tune the cars in *Forza*, we just rely on the data. If we improve our simulation, the true nature of the car comes out in the physics itself." ■

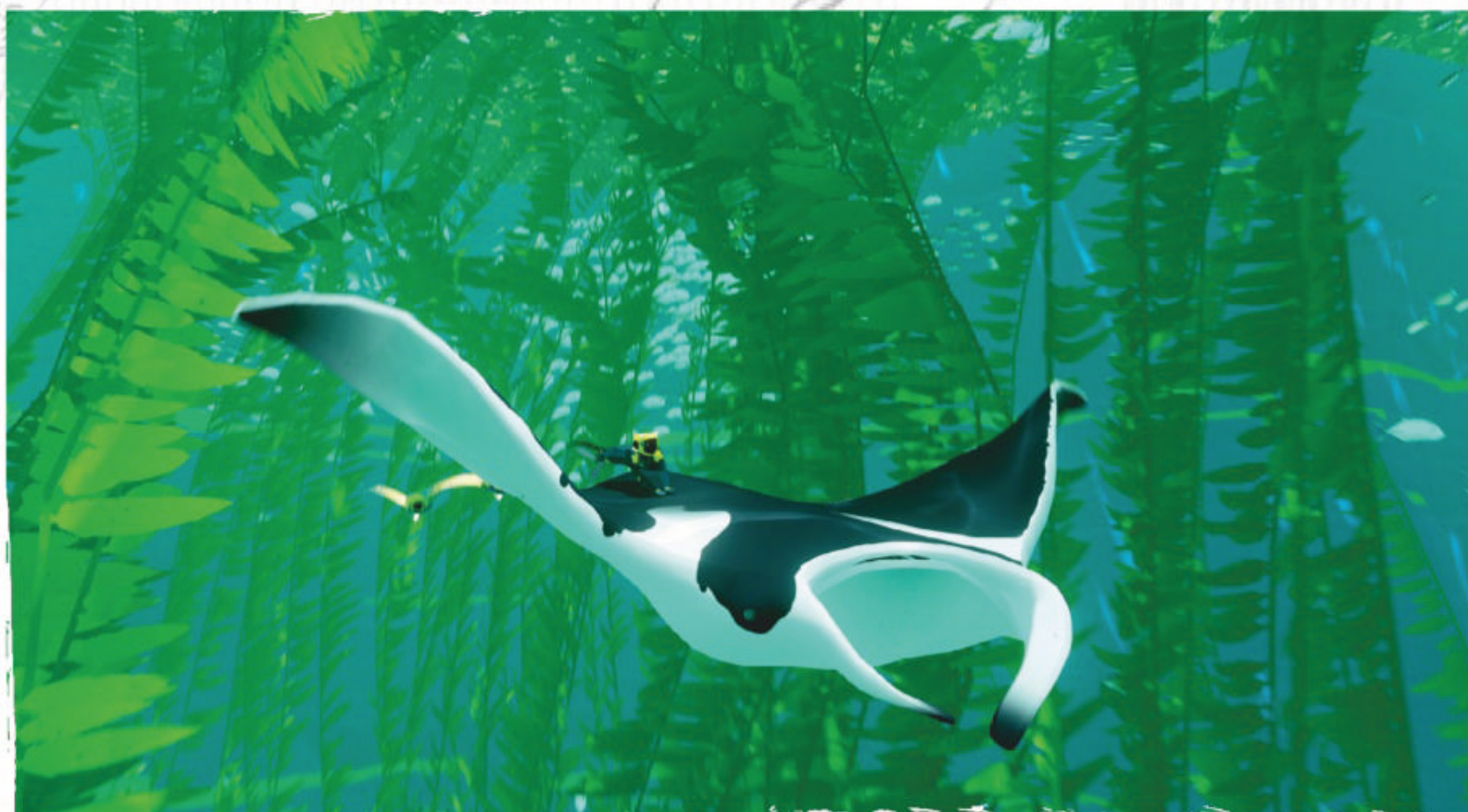


PLENTY OFFISH IN THE SEA



How **ABZU**'s art creates the dream of scuba diving

By Philippa Warr



Hundreds of thousands of fish swarm the screen as my diver arcs into the centre of a bait ball, merging with the roiling mass of fins and faces, before popping out on the other side. The sheer number of moving objects on the screen is momentarily overwhelming. *Abzu* revels in moments like this, showcasing technical and aesthetic mastery via a digital sea packed with beautiful things to watch.

“I always try to communicate the game’s core ideas through the visual style,” explains Giant Squid’s creative director, Matt Nava. “*Abzu* is about the dream of scuba diving – we wanted to deliver the overwhelming sense of majesty, awe and grandeur that one experiences when diving in the sea.”

The goal of *Abzu*’s art was thus not to offer a photorealistic underwater world, but one which evoked the sense of that world. “The way that we represented sea creatures and environments are meant to be iconic and symbolic rather than realistic, the style is an attempt to transport the player into a dream of the ocean.”

Abzu’s aesthetic is a mixture of realism and simplification. All of the creatures are based on animals in the real world but their forms are streamlined. They represent a type rather than an individual.

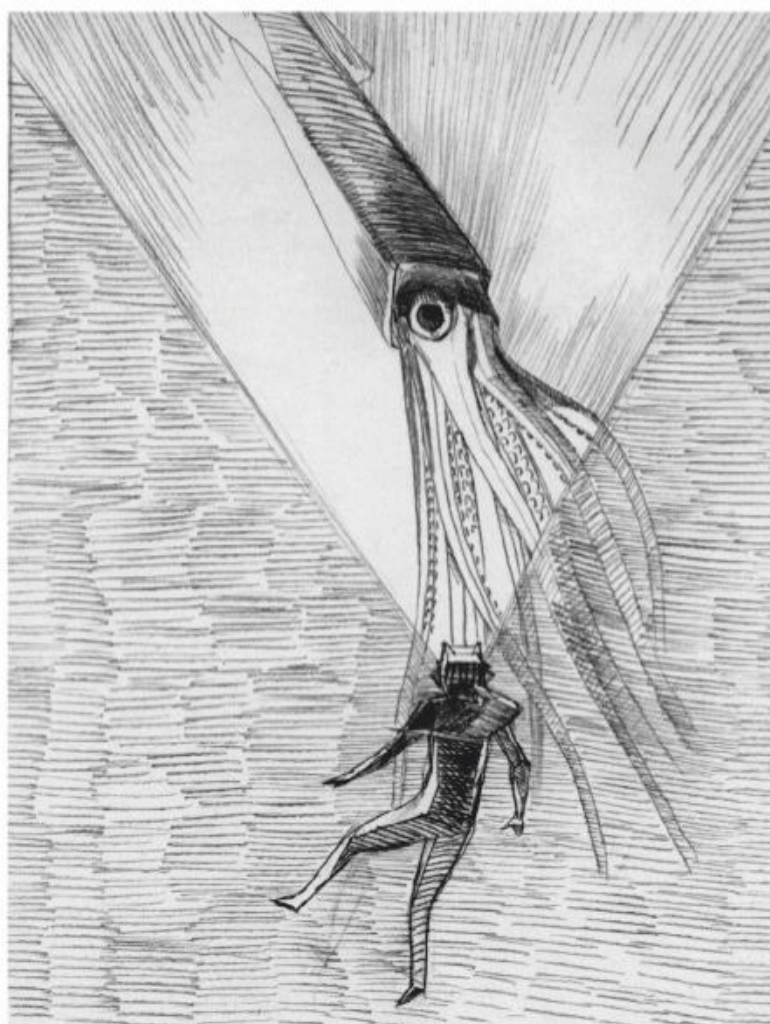
“Reality is full of detail and is often hard to visually parse,” says Nava. “In *Abzu*, there are hundreds of thousands of elements on the screen

– huge shoals of fish, fields of seagrass, forests full of kelp leaves. We had to create a visual style that could both support identifiable species of fish and also not become pure noise when thousands of creatures fill the screen.”

The solution was to create a “symbolic” form for each species where the creature only had the detail needed to identify it and no more. “We designed a style where we emphasised certain hard edges on each 3D model, which created a

unique planar look. This emphasised certain lines on the characters and helped the fish remain clear even in the distance.”

At a GDC talk several years ago Nava mentioned the idea of “hero” fish. These were creatures which took on special significance in an area and which could act as focal points in busy areas. Players will encounter hero fish early in the game – at the very beginning one very large goliath grouper stands out amidst schools of small yellow tail. It draws the player’s



TOP: A manta ray pushes through the fronds of kelp.

LEFT: Sketch showing the diver character encountering a giant squid. In-game they catch your character’s eye!

FEATURE

Abzu

» eye and they're able to latch on and ride it. "Each space in the game has one or two particular species that were the 'heroes' in this way," says Nava. He points out a room with giant manta rays noting how their colour and size make them stand out from the environment. I love latching onto those rays, watching them gently push through the kelp with their massive bodies as my diver hitches a ride.

These larger fish act as physical connection points for the player. They're the ones you can touch or interact with, and they're distinct units, easier to track as they move around and easier to think of as individuals. "Across the entire game, a relationship with a great white shark evolves, so the idea of a having a hero fish as a connection point also applied in the larger narrative," explains Nava.

The bait ball I mentioned at the start is another type of focal point. The larger predators working the bait ball could perhaps be thought of as hero fish, but I'd say that in this instance the hero is actually the bait ball itself. The individual fish move too fast to track but they form a larger entity – a single swirling, shining cloud.

With so many fish onscreen at a given time, all of them moving around, one of the challenges was distributing them in a way that looked right.

"Our team studied the behaviour of fish, visited aquariums and went diving to understand the logic behind the motion of fish shoals," explains Nava. "This research led to the creation of a very deep simulation of fish movement and complex AI that controlled the behaviour of the creatures in the environment.

"The fish are aware of the positions of their neighbours and how close they are to the level geometry, and use this information to determine where to go. They attempt to align with similarly sized fish of the same species and avoid larger fish of different species which are potential predators. Each fish also gets hungry and will look for smaller fish to eat. By creating a set of these rules for individuals, the group behaviour of schooling fish emerges organically, very similarly to real life."

BEYOND THE SEA

Reference points for the team included David Attenborough documentaries, deep sea rover live cam feeds and their own diving experience. But Nava was also influenced by the art of French painter Henri

Rousseau. "His work shares a similar dreamlike, symbolic version of natural environments with the art direction of *Abzu*. Some of his pieces, like *The Hungry Lion Throws Itself on the Antelope* and *The Dream* make you want to linger to observe hidden creatures among the leaves. This was exactly what we wanted players to do in *Abzu*."

In contrast to the ocean spaces, *Abzu* also lets the player access a more mysterious realm where glowing architecture stands out against dark waters. To me it's a combination of deep water and outer space. Nava points out that "diving



deep into the darkness of the sea is a universal metaphor of diving into one's self. The combination of ghostly architecture and swimming above a water plane created a sense of magic that we were looking for".

By interspersing time in the ocean with visits to this realm, Giant Squid was able to cultivate a sense that the diver was progressing, gradually transforming.

Despite solving vast technical challenges like putting hundreds of thousands of fish onscreen without tanking performance, one effect proved elusive – the thermocline. The thermocline is the point in the ocean between the warmer surface water and the cold of the deep sea. It's where the temperature suddenly plummets.

Visually this results in what Nava describes as "a horizontal plane of distortion". He explains, "We prototyped these in the game but players had no reference for what a thermocline was and therefore couldn't intuit what its effect would be. We ended up cutting it because we couldn't solve how to communicate the thermocline to players clearly enough."

I've gone scuba diving in the ocean once. I loved it, but you can become incredibly aware of being a small creature in an incomprehensibly vast space, entirely

ABOVE: This sketch shows a broken drone lying in the seabed.

LEFT: This sketch shows the moment the great white shark chomps a drone right in front of the player.





The glow of the door portal gives you a focal point in a busy space and shows the fog system at work.

dependent on not losing your bearings after, for example, becoming distracted by an interesting fish. But *Abzu*, by its very nature, involves a lot of being distracted by interesting fish, following them around or latching on and letting them pull you to wherever they're heading.

FOG OF WATER

One of the game's great successes (and something that I never consciously noticed because it works so beautifully) is the game's fog accumulation system. "We experimented with realistic fog

algorithms but ended up dissatisfied with the lack of directability," says Nava. "We created a system where we could specify the rate at which the fog thickened with distance from the camera volumetrically".

That might sound complicated but it basically allowed the team to tune visibility so players wouldn't become lost. "[It] allowed us to fine tune how far you could see from specific areas. This allowed important places to remain visible even in murky scenes. The system also allowed the colour and brightness of the water to be specified uniquely at every point in space."

In some ways the fog system functions like the hero fish, keeping the player connected to the space by showing them how to navigate it and offering focal points. It's these kinds of aesthetic choice which mean *Abzu* offers the dream of scuba and none of the nightmare. ■

"EACH FISH GETS HUNGRY AND WILL LOOK FOR SMALLER FISH TO EAT"

HEROES OF THE DEEP *Key characters in Abzu's undersea world*



MANTA RAY

The largest species of manta ray has a wingspan of 23 feet and the biggest brain of any fish. They might be able to recognise themselves in mirrors.



SUNFISH

Ocean sunfish weigh between 545-2,205 lbs. They have flat bodies and bask on their side near the surface so birds can feed on their skin parasites.



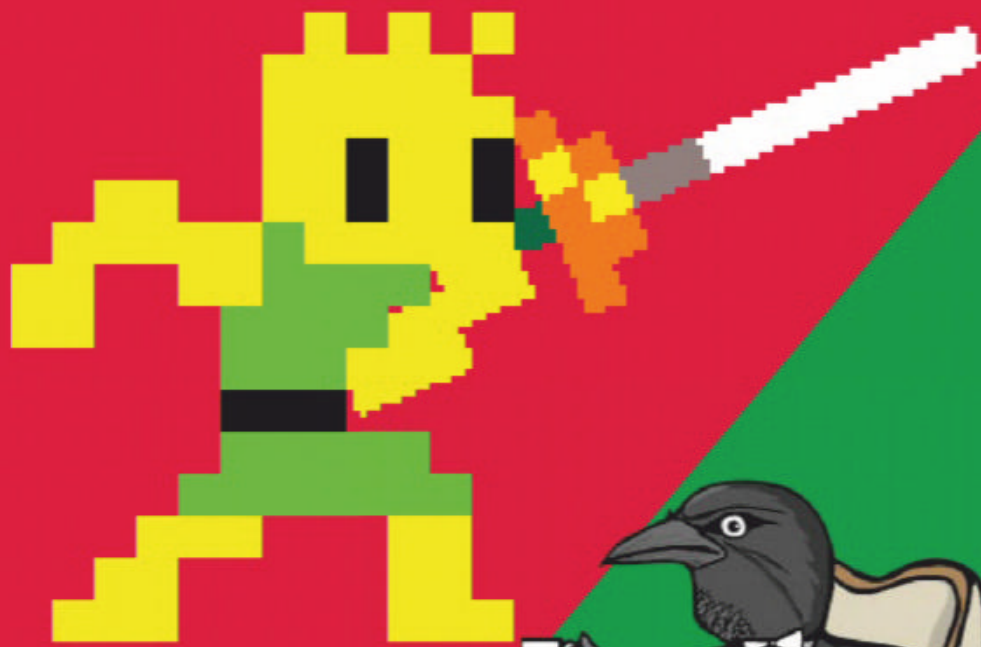
WHALE SHARK

The largest known specimen of whale shark reached 41.5ft and weighed 47,000 lbs. It's easily the largest known fish species on Earth.



GOLIATH GROUPER

Goliath groupers can grow to 8ft long. Once thought to be the same species, we now distinguish between Pacific and Atlantic goliath groupers.



RELIVE THE PAST

OVERCOME A CHALLENGE COMPETE AGAINST FRIENDS

SOLVE A PUZZLE

ENJOY A STORY

ROAR WITH LAUGHTER

SEE SOMETHING DIFFERENT

JUMP FROM FRIGHT

EXPLORE A WORLD

The Top 50 FREE GAMES

Our favourite freeware delights

By Phil Savage, Andy Kelly
& Tom Sykes





COMMAND & CONQUER: RED ALERT

Westwood's alternate history spin-off is still a great RTS, and one of a number of classics in the genre available for free.

Visit CNCNet and you'll find downloads of *Command & Conquer*, *Red Alert* and *Tiberian Sun*, all updated to work nicely on modern systems and integrated with the

CnCNet multiplayer platform for easy online play. If that isn't enough to sate your RTS desires, the brilliant *Twisted Insurrection* – available from the same site – is a total conversion of *Tiberian Sun*, available standalone. And, for fans of Westwood's main competitor, Battle.net lets you download *StarCraft* for free. **PS** cncnet.org/red-alert

THE ELDER SCROLLS II: DAGGERFALL

The second *Elder Scrolls* game is a glimpse of Tamriel before its modern incarnations in *Oblivion* and *Skyrim*. This absolutely enormous RPG is literally the size of Great Britain, although the primitive 3D visuals haven't aged terribly well. Still, this is a big old adventure, with a lot of features that would go on to define the series. **AK** bit.ly/daggerfall-free



OPENTTD

Transport Tycoon was the ultimate dad game. That's not to say that all dads enjoyed it, or that you had to be a dad in order to play. Rather, it embodied the metaphysical state of mid-'90s suburban dadness in that specific way that only a game about constructing a sprawling transportation empire can achieve. **PS** openttd.org



THE DARK MOD

The Dark Mod is a standalone platform for user-made *Thief* missions. It's easy to install new maps, meaning the hardest part is deciding what to play. Highlights include *The Tears of St Lucia*, *Briarwood Manor*, *Full Moon Fever* and the multipart *William Steele* series. **PS** thedarkmod.com



MARATHON

The '90s wasn't a great time to be an Apple fan, but at least Mac owners got the *Marathon* trilogy. Slower and more deliberate than *Doom*, and with an emphasis on story and labyrinthine levels, the full trilogy can now be played, for free, on Windows, Mac and Linux. **PS** alephone.lhowon.org



ULTIMA IV: QUEST OF THE AVATAR

Ultima IV may look like a simple RPG, but its twist on fantasy storytelling is one of the reasons the series is still so fondly remembered. There's no big evil to overthrow – rather, this is a story about becoming a better person by embodying the Eight Virtues. **PS** bit.ly/ultimafree



N v2.0

You're a ninja, navigating through featureless grey rooms full of gold and traps. Collect the gold, avoid the traps, and slowly become a master of momentum. The floaty jumping is perfectly tuned for keyboard precision, and ensures that *N v2.0* feels like no other platformer. **PS**
bit.ly/n2free



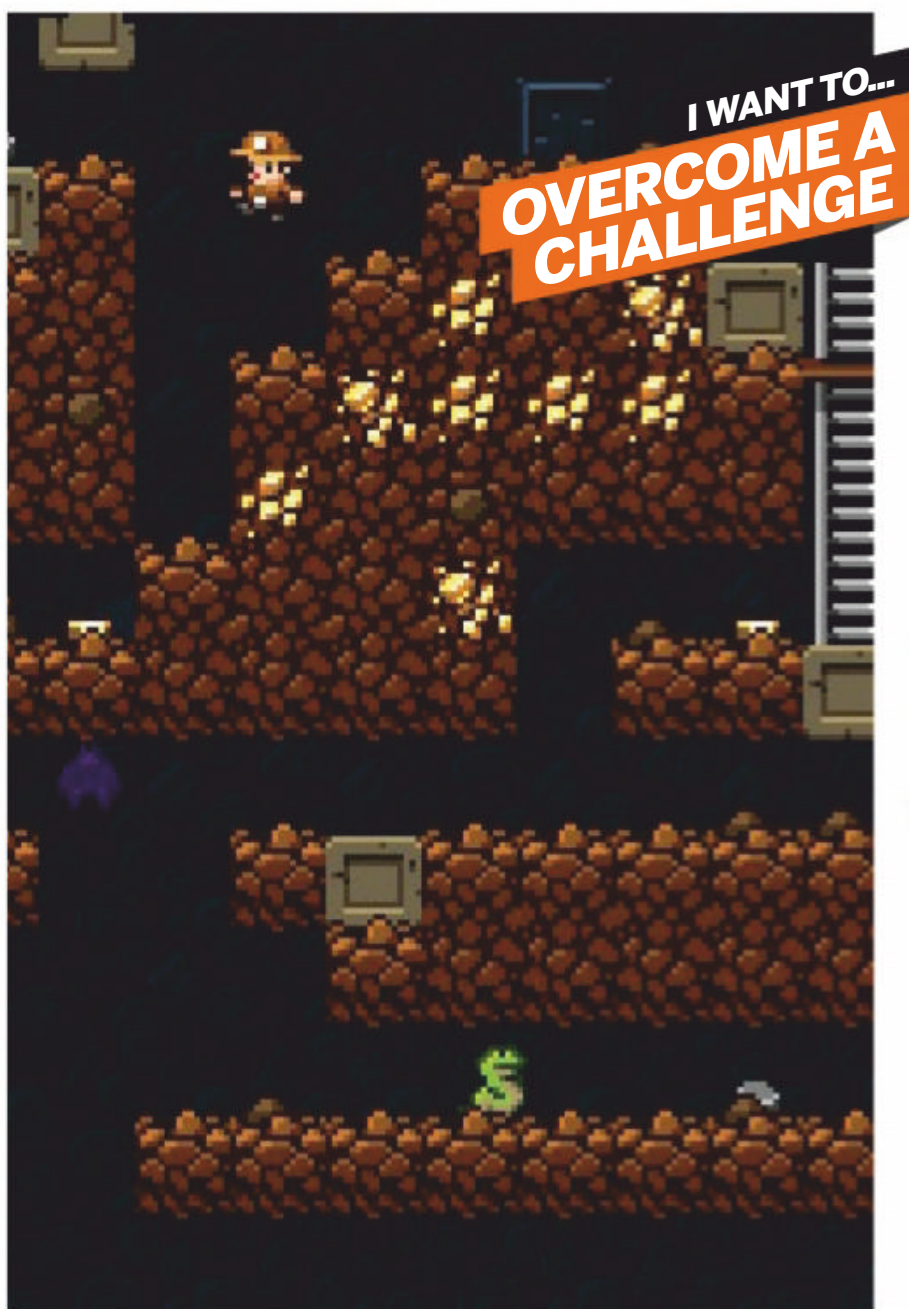
DWARF FORTRESS

One of the most ambitious and generous free games around. *Dwarf Fortress* is a society simulator, generating a world, history and nuanced characters. You build a home for your dwarfs, and try to secure their survival. It rarely goes smoothly, but remember: losing is fun. **PS**
bit.ly/dwarfpc



HYPERROGUE

While the concept is mildly terrifying, in practice this is one of the more approachable roguelikes, as it streamlines the genre to focus on movement and combat. You're hopping around a mathematically tricky sphere here, far bigger than its surface area and encompassing wildly differing geographical regions. **TS**
bit.ly/hrogue



SPELUNKY CLASSIC

Derek Yu's relentless, fiendishly addictive roguelike platformer is still enormously playable, whether it's the 2013 enhanced version or this, the free original. You play as a spelunker exploring a series of procedurally generated caverns, and the deeper you delve the more dangerous things get. These caves are filled with things that want you dead including spike traps, skeletons, snakes, and other nasties. To survive, and make it to the darkest depths of the cave, you need a lot of skill and a lot of patience. You'll die, a lot, in your first few runs. But with every attempt you get a little deeper, making it endlessly replayable. **AK**
bit.ly/spelunkpc

BROGUE

In many ways *Brogue* is an uncompromising, traditional roguelike, right down to the ASCII graphics. But its clever use of shading also makes it one of the most readable, turning a screen of text into an atmospheric map. It's easy to pick up and play, letting you get straight down to enjoying its surprising, procedurally generated adventures. **PS**
bit.ly/broguepc



HETS

Spelunky meets *Contra* in this murderous platform game where you explore one randomly generated level after another. Right away you'll be grabbed by the impressive lighting effects. But you'll stick around for the guns, which push you back with their hefty recoil, shake the screen and turn enemies into pixel confetti. **TS**
ditto.itch.io/hets

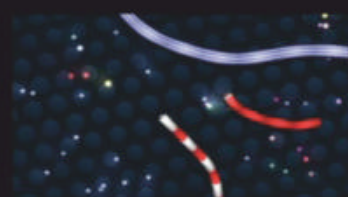
I WANT TO...
**COMPETE
AGAINST
FRIENDS**

The Top
50
FREE
GAMES

XONOTIC

If, like me, you long for a break from the battle passes and season ladders that make up today's online shooters, *Xonotic* offers a welcome respite. Its server browser promises a wealth of ways to engage in frenetic battle thanks to a vast mix of modes, maps and mutators.

Whichever server you pick, *Xonotic* offers rock solid gunplay and a quick pace that harks back to the speed and style of *Quake III Arena*. It's fast, fun, and incredibly easy to pick up and play. If you're looking for a purer, more competitive arena shooter, check out *Warsow*, which is also available for free. **PS** xonotic.org



SLITHER.IO

In this massively multiplayer mashup of *Snake* and *Agar.io*, players eat glowing pellets to grow their worm as long as they can. You need to avoid hitting other players, while trying to make them hit you – quickly darting in front of them in the hope of forcing an error. **PS** slither.io



THE BATTLE FOR WESNOTH

This is a huge turn-based tactical RPG – think *Fire Emblem*, but bigger and more complex. First released in 2003, it now offers a staggering 17 singleplayer campaigns and over 50 multiplayer maps. Should you make it through all that, there's community created content too. **PS** wesnoth.org

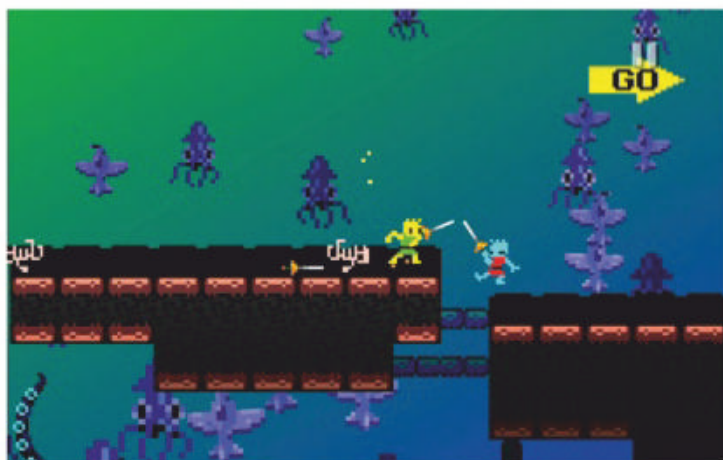
ZERO-K

This real-time strategy game, which has earned itself a dedicated cult following, features terrain deformation and battles on a truly massive scale. Reminiscent of games such as *Total Annihilation* and *Supreme Commander*, *Zero-K* sees you commanding a robot army to take control of large maps. **AK** zero-k.info



EGGNOG+

Heavily inspired by *Nidhogg*, parody game *Egg Nog* is now a much-loved local multiplayer game in its own right, with a subtly different moveset. You're trying to get to one end of the world, while your opponent attempts to reach the other. Stopping them will require much acrobatic slashing and wildly dangerous sword-chucking. **TS** madgarden.itch.io/eggnogg



The Top
50
FREE
GAMES



CUBE ESCAPE SERIES

For the past few years, developer Rusty Lake has been rapidly expanding the surreal universe that shares its name. There are the *Rusty Lake* games – bigger puzzle titles that come with a price tag – and the shorter *Cube Escape* series, which hurtle the player from one strange locked room to another. They're basically room escapes, but with a macabre sense of humour, a touch of Lynchian weirdness, and cryptic stories that have inspired much fan debate. It's an inspired concoction, with challenging puzzles and an absorbing atmosphere. Lynchian stuff is already puzzling, so why not throw some actual puzzles in there too? **TS**
cubeescape.com



ENDING

Everything is predictable in *Ending*, a minimalist puzzle game that behaves a lot like a traditional, turn-based roguelike. Mastering each clockwork level will require plenty of deaths and restarts, but you're rewarded for your persistence with a steady drip-feed of inventive new mechanics. **TS**
bit.ly/endingpc

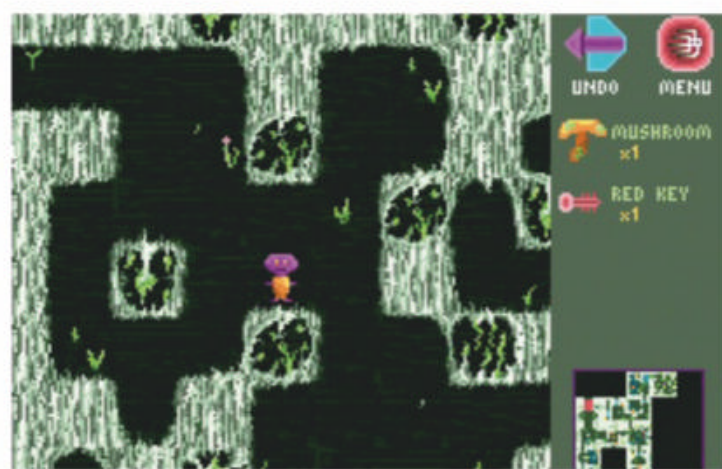


COUNTERFEIT MONKEY

In a game made out of text, what happens when you're given a tool that can remove letters from words, creating new ones in the process? Lots of playful experimentation, in this expansive interactive puzzle adventure that invites you to rewrite its very world. **TS**
bit.ly/monkeyif

CORRYPT

Michael Brough's *Corrypt* isn't quite what it appears, your first clue being the name 'Michael Brough'. His games always surprise. *Corrypt* is a block-pushing game where you end up changing the nature of its world. The best puzzle games leave you open-mouthed at their ingenuity. *Corrypt* will leave your chin resting on your keyboard. **TS**
smestorp.itch.io/corrypt



SKIPPING STONES TO LONELY HOMES

PuzzleScript is a brilliant tool, allowing people to easily create Sokoban-style games such as Alan Hazelden's *Skipping Stones*. It's an open-ended puzzler that asks you to cross a series of islands, using only stones and lily pads. Stones can be skipped along water, while lily pads can be shunted aside. The result is a devious puzzler. **TS**
bit.ly/skippingpc



SPIDER AND WEB

Mixing flashbacks with interrogation sequences, and making great use of text's slippery nature, it's not hard to see why *Spider and Web* is one of the most celebrated works of interactive fiction. That 'interactive' part isn't for show: this is a Cold-War-era spy story shaped by you. **TS**

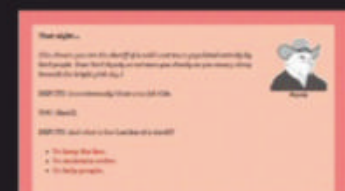
bit.ly/spiderpc



HEROINE'S QUEST

This is a heartfelt love letter to the *Quest for Glory* series, but set in a new fantasy world inspired by Norse mythology. Naturally you'll still fight, sneak or magic your way through point-and-click problems, in this massive, beautiful game that was somehow released for free. **TS**

bit.ly/questpc



BIRDLAND

Plenty of games feature teenagers, but the summer-camp-set *Birdland* is the rare game that convincingly gives them a voice. It's a mystery, and a romance title, but above all *Birdland* is a compelling story, with some of the most natural dialogue you'll find in any game. **TS**

birdland.camp

DELTARUNE: CHAPTER 1

Who knows where *Undertale* follow-up *Deltarune* is heading for its second chapter, but this multi-hour RPG already feels like a complete game, taking the player from their school, to a troubled fantasy land and back again. There are subtle improvements over *Undertale*, including

more detailed pixel art and the addition of battle companions, but the core experience will be familiar if you've already saved or slaughtered the world of the original game. Thankfully that core is fantastic with the heroes and villains of *Deltarune* going on surprising journeys in this hilarious, at times moving RPG. **TS**

deltarune.com

BUTTERFLY SOUP

Dialogue is the heart of any visual novel, and it's impressive just how much character Brianna Lei has crammed into *Butterfly Soup*. It's a game about gay romance in an all-women's baseball club, but really it's a game about its cast, which bursts onto the screen with a vividness uncommon in, well, the majority of video games. **TS**

brianna-lei.itch.io/butterfly-soup



LIEVE OMA

Go for a quiet walk with Grandma in the sweet *Lieve Oma*, a story that captures the spirit of autumn. Crunching leaves underfoot in search of edible mushrooms, the teenage protagonist slowly begins to open up to their grandmother. Most game stories ask you to do dramatic things, but this focuses on a small moment in time. **TS**

vltmn.itch.io/lieve-oma



A MUSEUM OF DUBIOUS SPENDORS

This pairs short passages from the work of (fictional) poet Mir UmarHassan with everyday objects that hang, giant and unnatural, in the titular museum. It's beautiful and haunting, and forms part of Studio Oleomungus' larger narrative project, *Somewhere*. **PS**
bit.ly/2UHX3VS



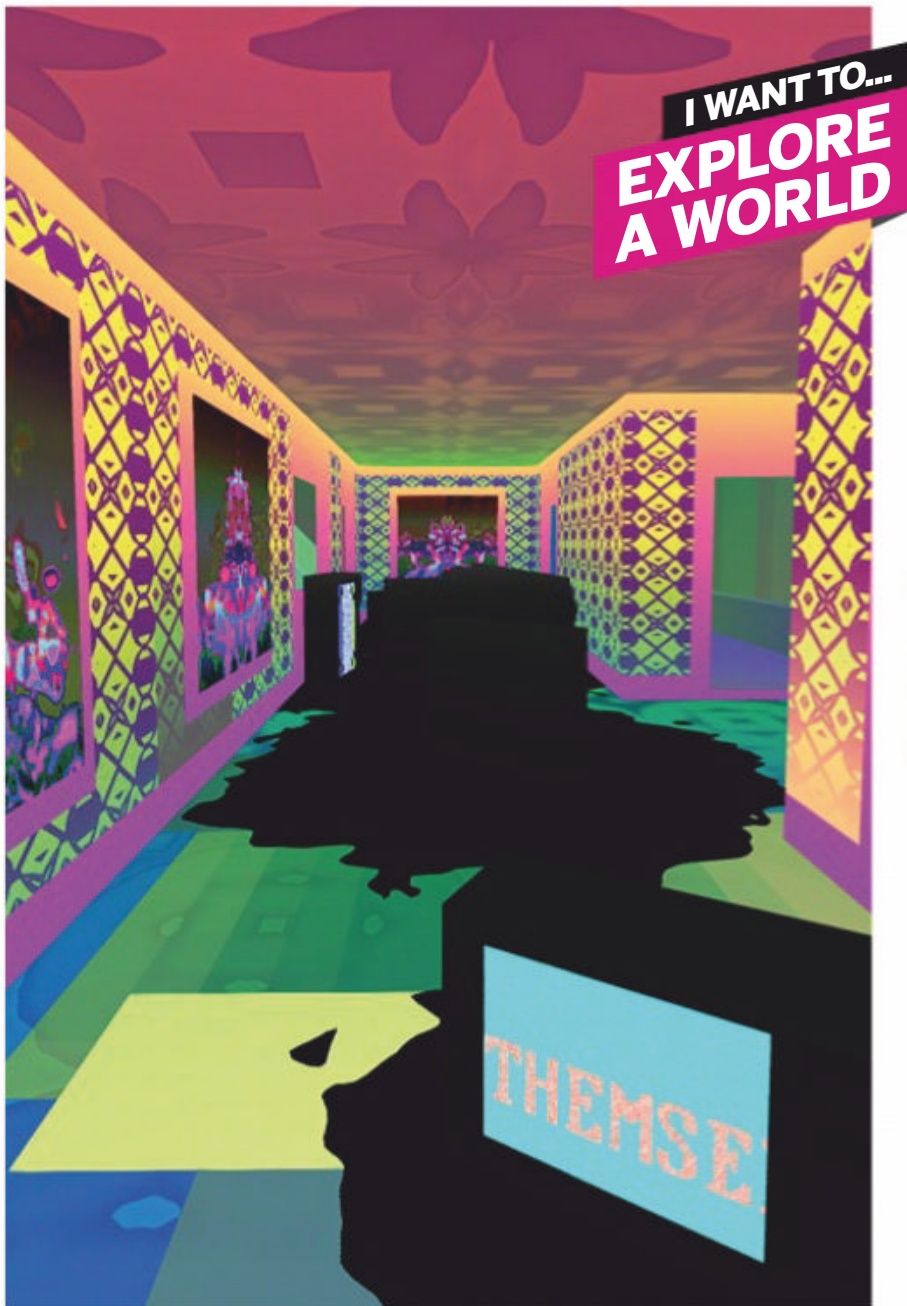
BIRTHPLACE OF OSSIAN

You can almost feel the wind on your neck as you roam the acres of terrain open to you in Connor Sherlock's hilly traversal game. Traipse from one ancient monolith site to another, as gorgeous synth music imbues the rugged landscape with meaning. **TS**
bit.ly/ossianpc



BERNBAND

There's no combat, complicated puzzles, or rich story to discover in *Bernband*. Featuring weird, stylish pixelated visuals, you explore an alien city, mingling with crowds in nightclubs and soaking in the strange atmosphere. A difficult game to pin down, but one worth sampling. **TS**
bit.ly/bernbandpc



THESE MONSTERS

Or really any Strangethink game, but this feels like a good introduction to the developer's refreshingly colourful, abstract environments. Previous games took you to alien art exhibits, and procedurally generated galleries, while *These Monsters*' artistically minded world takes the form of an imposing museum. In each room there is a TV, or several of them, showing vaguely sinister warning messages on a loop. It's only when you leave the rooms that you realise you've been taken somewhere new, as its dizzyingly recursive world displaces the player every time they pass through a door. Good luck finding your way around this brilliantly disjointed museum. **TS**
bit.ly/thesemonsters

HAUNTED CITIES

Explore a range of unsettling, fantastical worlds in Kitty Horrorshow's *Haunted Cities* series. The environments include apocalyptic cities and messed-up fantasy worlds, and look convincingly like 3D games from the mid-'90s. With no combat to worry about, it's a joy just to explore these ambiguous spaces. **TS**
bit.ly/hauntedpc



OFF-PEAK

Ajazzy explore-'em-up that captures many of the best parts of immersive sims. There's no fighting or sneaking here, but there are plenty of NPCs to chat to, and stuff to interact with. Exploration is only meaningful if there are worthwhile things to find, and *Off-Peak* is crammed to the rafters with interesting sights. **TS**
bit.ly/offpeakpc

I WANT TO...
**JUMP
FROM
FRIGHT**



CRY OF FEAR

Every minute, roughly fifty billion jump-scare-laden horror games are added to itch.io and Game Jolt, but very few take you on a journey (or at least one that doesn't begin and end in the same dim corridor). Built on the shambling bones of the *Half-Life 1* engine, *Cry of Fear* is at times an FPS, at

other times a survival horror and puzzle game, and at all times a cinematically minded experience clearly inspired by the game it's built upon. Many of the best horrors combine genres like this, from *Dead Space* to *FEAR*, so it's great to have another horror game that understands the value of variety. **TS**
bit.ly/cryfear



FAITH

A retro-styled horror that puts you in the role of a priest, with the power to banish demons with his trusty crucifix. Although this looks like a C64 game, it thankfully feels more modern, with some genuinely frightening moments that go beyond the game's apparent limitations. **TS**
bit.ly/faithpc

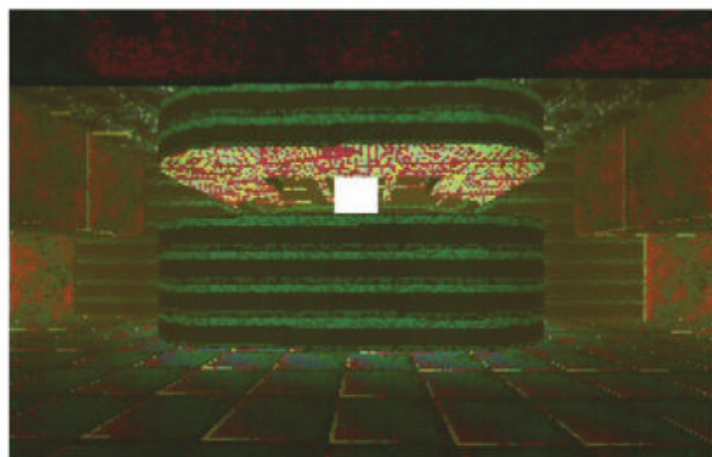


TOTAL CHAOS

A stunning *Doom 2* mod that barely resembles the game it's built on, surely due to magic or a pact with Beelzebub or some other higher demon. In this ammo-scarce FPS where the 's' stands for shoveller, you'll spend a lot of time battering hideous monsters to death with melee weapons. **TS**
bit.ly/chaosmod

BAD DREAM: SERIES

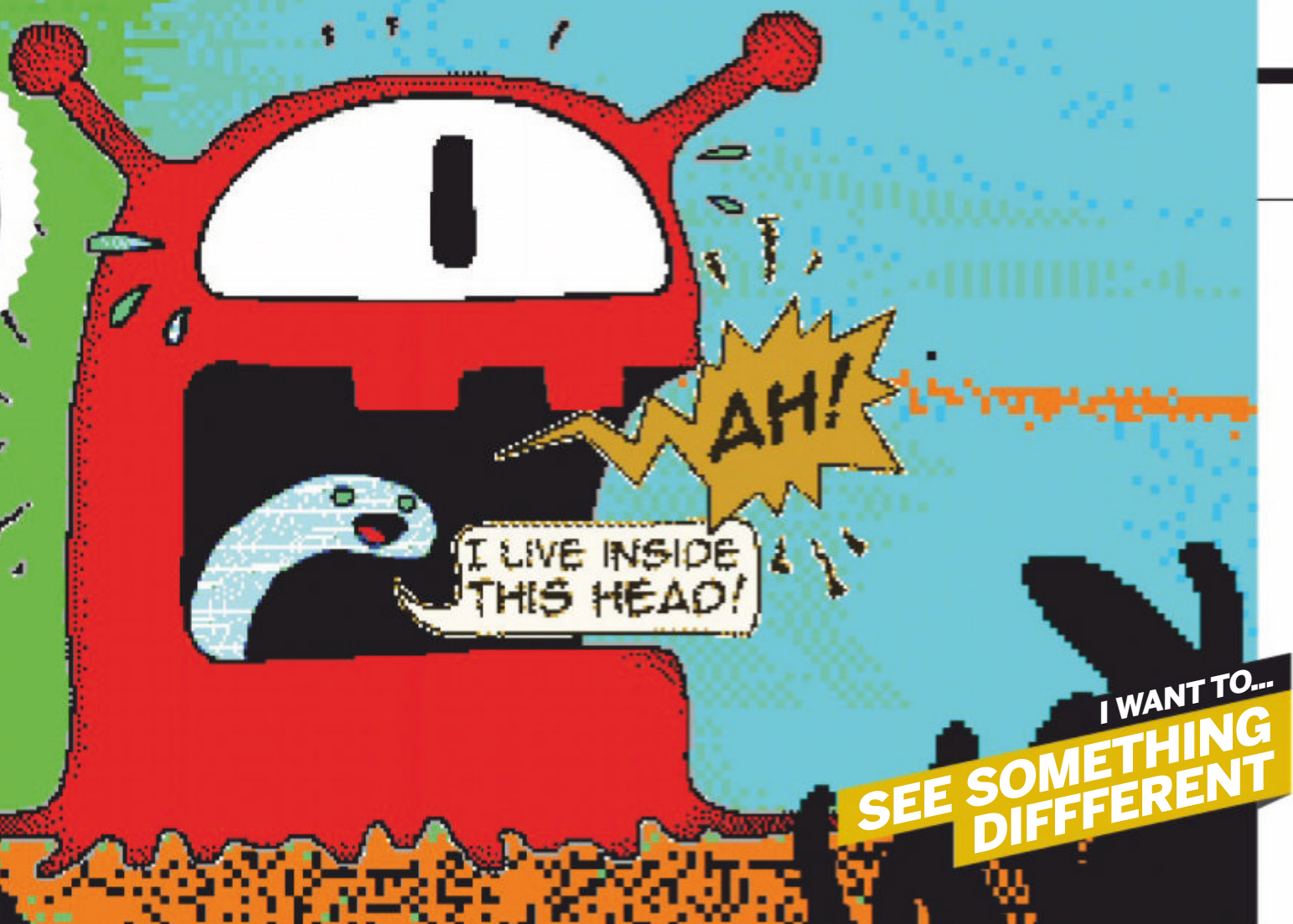
Bad Dream is all about clicking. Being a point and click adventure series, that might seem obvious, but rarely is clicking on things as satisfying as it is in these macabre games. You'll use the mouse to make bugs slither out of plant pots and other gruesome actions. **TS**
bit.ly/badfree



KNOSSU

Knossu reinvents the labyrinth as a glitchy digital maze, patrolled by a creature more terrifying than any minotaur. As you explore this non-euclidean labyrinth, with its eerily rippling walls and clever one-way portals, you'll come face-to-mass-of-swirling-pixels with an invisible creature that seems to be rending the very fabric of the world apart. **TS**
bit.ly/knossupc

The Top
50
FREE
GAMES



MUSCLE WORLD

Taking inspiration from From Software's *King's Field* series, *Muscle World* nails those games' dread-laden atmosphere. However it's not a medieval RPG, but a surreal survival horror where you play as a bodybuilder crawling across the ceiling of a cavernous dungeon. **TS**
bit.ly/musclepc



O ABYSSAL SOMEWHERE

Techno-horror meets, well, survival horror in this third-person adventure set in a void-like environment. Don't expect any clear answers, as you explore and battle ghostlike enemies, but do expect to stop every few minutes to gawk at the game's truly alien world. **TS**
bit.ly/abysspc

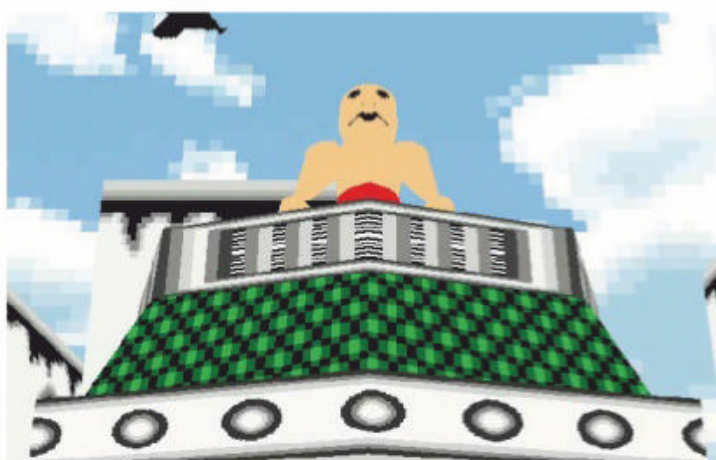
EVERYTHING IS GOING TO BE OK

Nathalie Lawhead's games are like nothing else out there: wiry, multimedia experiences where cuteness and harshness, and comedy and darkness are not considered mutually exclusive terms. These are games that tackle big topics like love and death with rawness and honesty,

but where hyperactive rabbits stand in for humans, and annoying cyberpets are sometimes unleashed on your desktop. *Everything is Going to be OK* is an 'interactive zine' – a collection of minigames, where a bevy of cute creatures struggle with the bad things that existence doles out now and again. **TS**
bit.ly/okfreepc

BLUES FOR MITTAVINDA

Blues for Mittavinda is one of the slower, more restrained games found in Jack King-Spooner's catalogue of unfiltered delights. It transports you to a handsomely modelled, claymation take on the old west. Take your time exploring this one. **TS**
bit.ly/mittavinda



CRYPT WORLDS

Abizarre first-person adventure that feels like a glitched-out PS1 game, or *Ultima Underworld* if it had been corrupted by 100 malware programs. It's an incoherent, overwhelmingly odd archaeology game containing countless moments that will make you laugh, think and scratch your head, often simultaneously. **TS**
bit.ly/cryptpc



DOG OF DRACULA 2

Years ago we defeated the Nachrehzer and his ban on condiments that devastated the world, but life only got worse," deadpans *Dog of Dracula 2*'s intro. This is a bleak dystopia of dogs, groomers and cyberbahn addicts. You play as Cid, a "homicidal otaku weapon", trying to

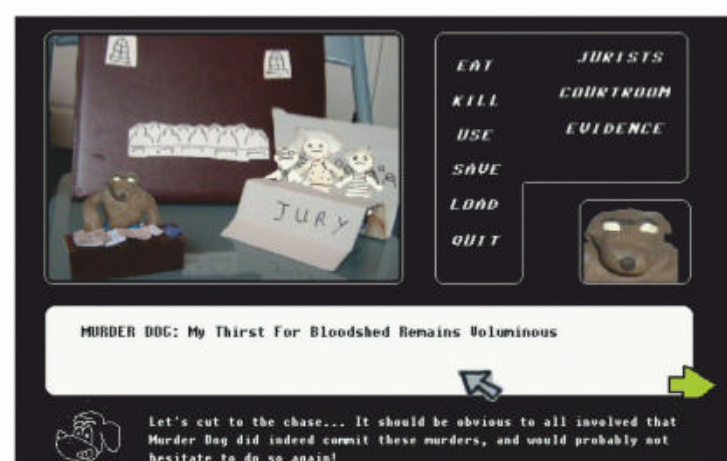
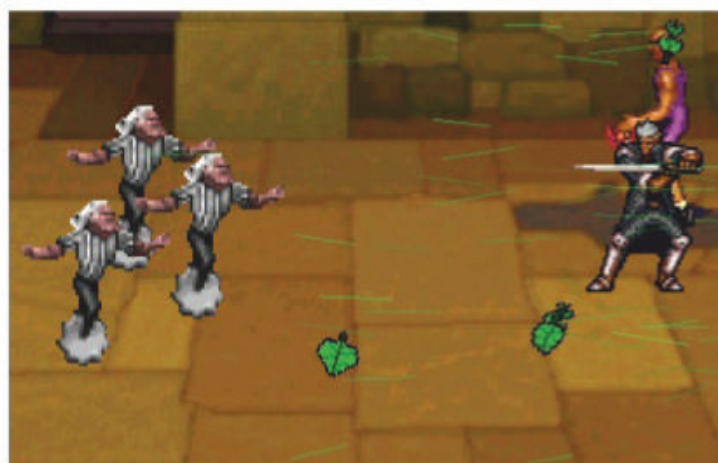
drown out the pain of life by overindulging in durststep and sauce. Full of references to anime and '90s consumerism, *Dog of Dracula 2* combines cyberpunk absurdism and noir fiction to great effect, resulting in memorably weird lines. "She owns that onesie in a way that spells trouble in capital keypresses." **PS**

bit.ly/draculapc

BARKLEY, SHUT UP & JAM GAIDEN

This tongue-in-cheek *Final Fantasy*-inspired RPG is set in a 'post-cyberpocalyptic' New York City and stars ex-NBA star Charles Barkley. After performing a devastating 'chaos dunk' during a match, Barkley finds himself in a world where basketball is outlawed. This is a genuinely hilarious, deeply weird game, and no, you don't have to be into basketball to enjoy it. **AK**

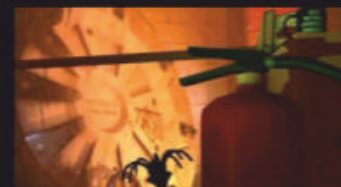
bit.ly/barkleypc



MURDER DOG IV: TRIAL OF THE MURDER DOG

Murder Dog – aka Crime Pooch, aka Slaughter Pup – is on trial at the Hague for crimes that he definitely did commit. Entitled to a trial, it's up to Murder Dog to refute evidence, browbeat witnesses and just generally make a mockery of the legal system in the hope of forcing the jury to declare you not guilty. **PS**

bit.ly/murderdog



DR LANGESKOV, THE TIGER, AND THE TERRIBLY CURSED EMERALD

Dr Langeskov promises to be an exciting heist game. Unfortunately most of the staff have gone on strike and there's another player in the game right now. Maybe you could help out behind the scenes instead? **PS**

bit.ly/langeskov



RADIATOR 2

Robert Yang's second trilogy of shortform narrative experiments about intimacy is lighter in tone than *Half-Life 2* mod collection *Radiator – Stick Shift*, as its description explains, "is an autoerotic night-driving game about pleasuring a gay car" – but it still has lots to say about eroticism and consent. **PS**

bit.ly/radiatorpc



COOKIE CLICKER

This was coded in one night by creator Julien Thiennot, and has developed a cult following. As the name suggests, your goal is to create cookies by, er, clicking on a cookie. But then you can improve the efficiency of your clicks, and automate them, generating billions of cookies. **AK**

bit.ly/clickpc

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REVIEW

HOW WE REVIEW

We review each game on its own merits, and try to match it to a reviewer who's a passionate expert in the field. The main aim of reviews is to help you make buying decisions. To this end, we're selective about what we review, and try to focus on the notable, interesting, exciting or surprising.

DOWNLOADABLE CONTENT

DLC might be new missions for a game, or it might be a single new item. If we think you want to know about it, we'll review it.

EARLY ACCESS

Any released alpha, beta, or otherwise unfinished game that you can currently pay for. For these games, we won't assign a score, but we will tell you whether they're worth your time.

THEY'RE BACK

Whenever there's a bargain or re-release of a significant game, our expert will revisit it and tell you whether it holds up today. With jokes.

OUR SCORING SYSTEM EXPLAINED

00%-09% Broken or offensively bad; absolutely no value.

Example *Leisure Suit Larry: Magna Cum Laude*

10%-19% We might be able to find one nice thing to say about it, but still not worth anyone's time or money.

Example *Gettysburg: Armored Warfare*

20%-29% Completely falls short of its goals. Very few redeeming qualities.

Examples *Family Guy: Back to the Multiverse*

30%-39% An entirely clumsy or derivative effort. There's little reason to play this game over a similar, better one.

Examples *Trials of the Blood Dragon*

40%-49% Flawed and disappointing.

Examples *Aliens: Colonial Marines*

50%-59% Mediocre. Other games probably do it better, or its unique qualities aren't executed well.

Examples *Primordia, Homefront: The Revolution*

60%-69% There's something to like here, but it can only be recommended with major caveats.

Examples *No Man's Sky, Ghost Recon: Wildlands*

70%-79% A good game that's worth playing. We like it.

Examples *Prey, NieR: Automata*

80%-89% A great game with exceptional moments or features, and touches of brilliance. We love it.

Examples *Overwatch, Night in the Woods*

90%-94% A compelling recommendation for most PC gamers. Important to PC gaming, and likely ahead of its time.

Examples *Bayonetta, Dishonored 2*

95%-96% Far and away one of the best games we've ever played. We recommend it to the entire world.

Examples *Half-Life 2, Kerbal Space Program*

97%-100% Advances the human species. Boosts the immune systems of nearby children and small animals.



The Editor's Choice award is granted in addition to the score, at the discretion of the PC Gamer staff. It represents exceptional quality or innovation.

Find out more
www.bit.ly/pcgreviews



Sweet spot

ARE! YOU! READY! FOR! THE! BRITISH PUDDING SUMMER SWEETS POWER RANKINGS?

Because, y'know, I have assessed all four of the flavours in this Marks and/or Spencer selection!

Right! In last place is apple & raspberry fool as the raspberry is barely detectable and swiftly fades into generic peardrop flavour.

Lemon meringue is third because the strong flavour was closer to the banana-flavoured amoxycillin prescription I had for glue ear as a child, not lemon meringue. I had a tang of lemon partway through

eating but it didn't last. Rhubarb & custard is a worthy runner up – a robust take on a classic.

Peaches & cream is thus the champ, tasting exactly like tinned peach slices in syrup. Congrats!

Pipx

PHILIPPA WARR
DEPUTY EDITOR

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**LET US KNOW
 WHAT YOU THINK**
 Email us via letters@pcgamer.com with your reactions, or simply tweet us your thoughts @PCGamer



Contents

- 70** The Division 2
- 74** **Dirt Rally 2.0**
- 76** Devil May Cry 5
- 78** **Baba is You**
- 80** Ape Out
- 82** **Devotion**
- 84** Eastshade
- 86** **Anthem**
- 90** Trials Rising
- 92** **Hypnospace Outlaw**

FREE GAMES

- 94** How to Be a Tree
- 95** **Bird of Passage**
- 95** A Knight's Fee

THEY'RE BACK

- 96** Alpha Protocol
- 97** **Stories Untold**
- 97** Broken Sword 3
- 97** **Rusty Lake Roots**
- 97** Indiana Jones and the Fate of Atlantis

This month's hard boiled players...



SAMUEL ROBERTS
Specialist in
Division, subtraction
Currently playing
The Division 2
This month
Took an in-game trip
to the American
History Museum.



PHIL IWANIUK
Specialist in
Really slidy cars
Currently playing
Dirt Rally 2.0
This month
Contemplated the
question: can one really
know how a rally car
feels to drive?



TOM SENIOR
Specialist in
Punching demons
Currently playing
Devil May Cry 5
This month
Has played so many
punchy, slicy games
he is more combo than
human man.



PHILIPPA WARR
Specialist in
Painting owls
Currently playing
Eastshade
This month
Literally got in the sea
thanks to a windy day,
a high tide, and some
slippery rocks.



STEVEN MESSNER
Specialist in
Never wanting to play
Anthem again
Currently not playing
Anthem
This month
Continued to bend
spacetime and keep up
with all his MMOs.



ANDY KELLY
Specialist in
Cybersecurity
Currently playing
Hypnospace Outlaw
This month
Yearned for a simpler
time where Geocities
thrived and midi files
ran rampant.



MATTHEW ELLIOTT
Specialist in
The past
Currently playing
Alpha Protocol
This month
Got so used to game
bugs he manually
saves his real life.

CAPITOL THRILL

THE DIVISION 2 is an hour-eating and frequently thrilling excursion into Washington DC. *By Samuel Roberts*

After 25 hours of wrestling with BioWare's looter shooter *Anthem*, it's funny how grateful I am for the little things in *The Division 2* – stuff like being able to switch my loadout on the fly, without exiting a mission or sitting through a loading screen. No one's tried to make me and three other players sit through a boring mid-mission cutscene, either. In fact, *The Division 2* barely makes me pay attention to its barely-there story at all. Great!

The Division 2 presents a much stronger campaign experience than the first game, with fewer filler missions, and better open world side activities. Its endgame, too, is a satisfyingly different offering to the preceding hours, remixing levels, making the world feel more alive, and escalating the difficulty of side activities to keep you playing. I will say this, if *The Division* didn't grab you at any point during the past two years of well-considered updates, I don't think this will necessarily be the right game for you now.

It's largely a superior version of the same thing – tough third-person co-op shootouts, interlocking player skills, incremental loot rewards, and a familiarly dry Tom Clancy military tone.

Where it improves is in the cadence of its rewards, pelting you with loot and experience points from

various sources, and making the next upgrade feel like a natural result of your journey through the game rather than being arduously earned. If you're looking for a strong looter shooter you can enjoy with friends in the wake of *Anthem*'s troubled launch, or you want a mid-season break from *Destiny 2*, this will likely be a strong fit.

It helps that the main mission design is mostly terrific, taking you through a variety

of real-world tourist spots for shootouts with the game's three enemy factions: the Hyenas, True Sons and Outcasts, all of which behave a bit differently in combat.

Enemies don't feel as bullet-hungry as they did in the first game, and some of the elite enemies – whose armour is peeled off with gunfire – are genuinely fun to fight. It's a mostly great shooter, let down by the occasional AI issue, where an

The main mission design is mostly terrific

NEED TO KNOW

WHAT IS IT?
Co-op looter shooter set in an open world Washington DC

EXPECT TO PAY
£50

DEVELOPER
Ubisoft Massive

PUBLISHER
Ubisoft

REVIEWED ON
i5 8600K, 16GB DDR4, GTX 1080Ti

MULTIPLAYER
Four-player co-op, PvP

LINK
www.tomclancy-thedivision.ubisoft.com

enemy will get stuck on the spot, or spend so long climbing around that you can easily pick them off.

Each main campaign mission feels like a real event. Given that no one really makes linear third-person shooter games now – here they're isolated parts of a massive open world looter game – it's easy to forget what these kind of levels feel like when they're designed well.

EXPLODING HISTORY

There's an amazing excursion into the American History Museum, where there's a (probably tasteless) firefight in the midst of a Vietnam recreation exhibit, complete with royalty-free version of The End by The Doors playing in the background. And then there's a gunfight in the Air & Space Museum's planetarium and Mars exhibits, which for a few minutes make you feel like you're playing a sci-fi shooter.

The choices of setting for the main missions give them a lot of flavour. The longer strongholds that bookend the campaign, with one for each of the three factions, offer the biggest and most exhilarating set pieces in the game.

As someone who's never visited the city in real life, Washington DC isn't as immediately recognisable as the first game's New York, barring a few obvious landmarks.

It undoubtedly feels more alive than the first game's world, though, with plenty of friendly NPCs breaking into firefights with the various enemy factions. It can be exciting to arrive halfway through a battle to turn the cause in your side's favour, bravely shooting enemies in the back while they're distracted by your allies.

DC is also beautiful in places. The weather effects and day/night cycles contribute so much to the game's atmosphere, with the world looking almost entirely different when covered in rainfall, and the odd thunderstorm making firefights particularly dramatic.

TOM CLANCY'S TOUR BUS

Shoot your way around DC's finest abandoned locations

1 WHITE HOUSE
Your base of operations, and a strangely boring space to be in. Being president is overrated.

2 AIR & SPACE MUSEUM
The highlight of the game, with firefights set in a planetarium that's inexplicably been left on.

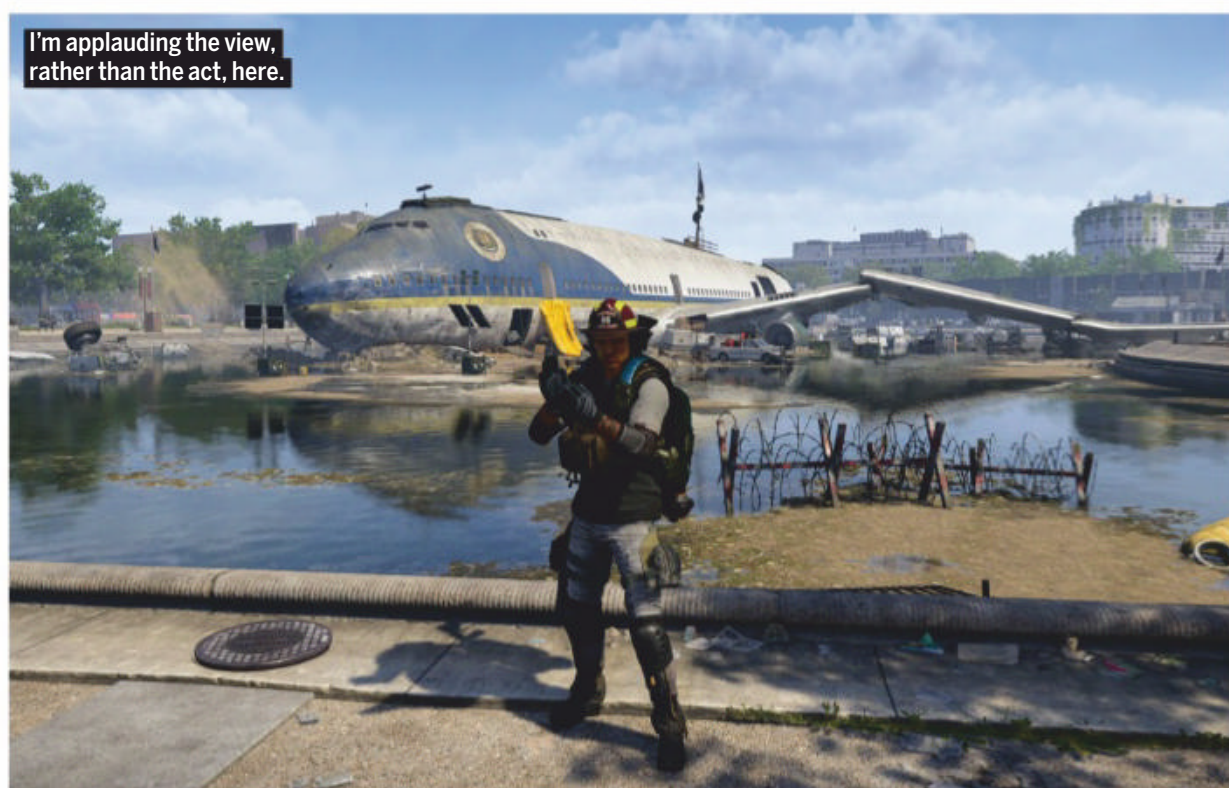


3 THE LINCOLN MEMORIAL
I'm not sure why there's a level set here, but it's surrounded by the nicest area on the map.

4 AMERICAN HISTORY MUSEUM
The Vietnam exhibit is the highlight, but it's another level full of nice details.



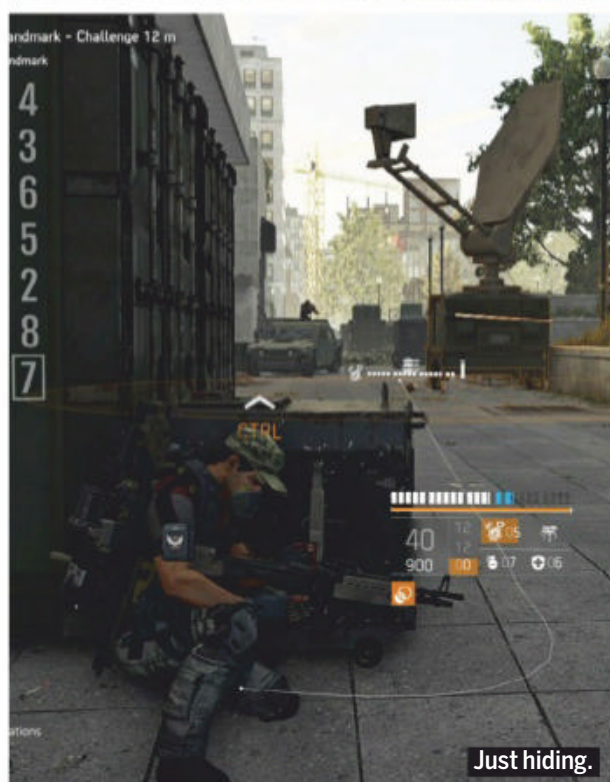
Elite enemies are easier to kill than they were in the original.



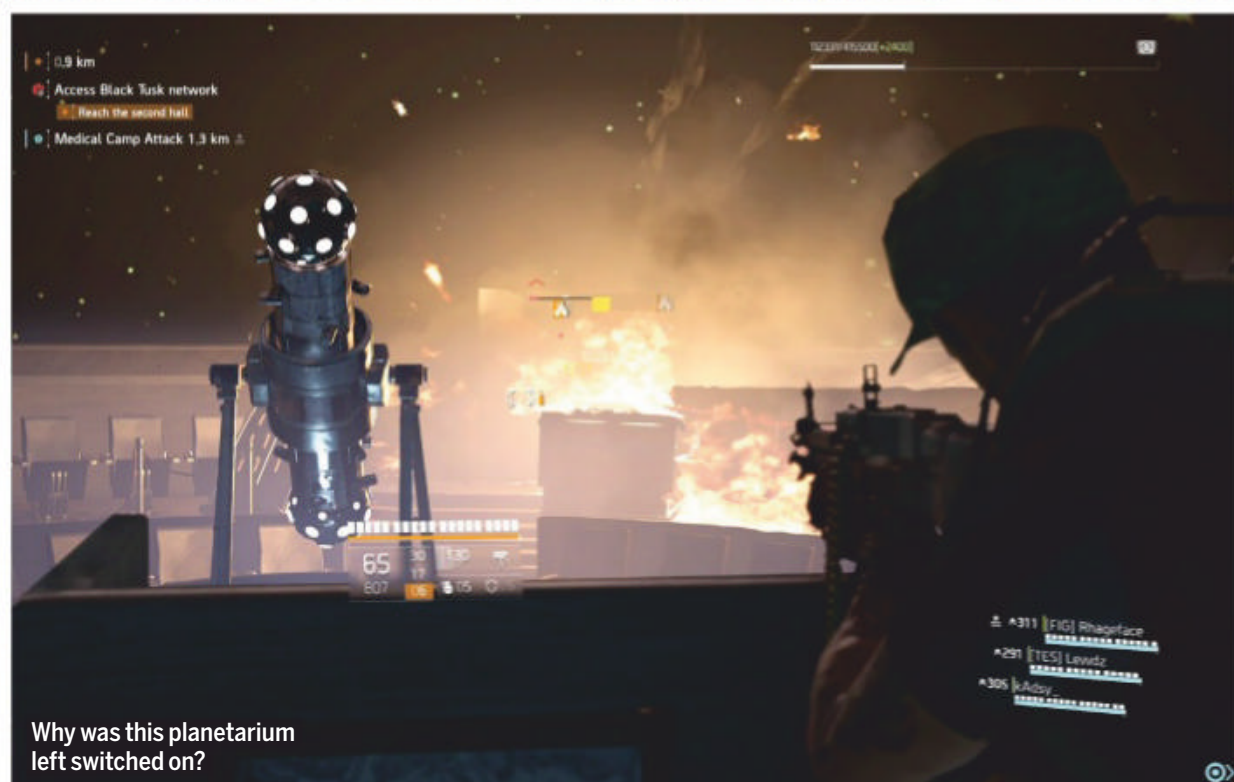
I'm applauding the view, rather than the act, here.



The dedicated PvP mode is just okay, really.



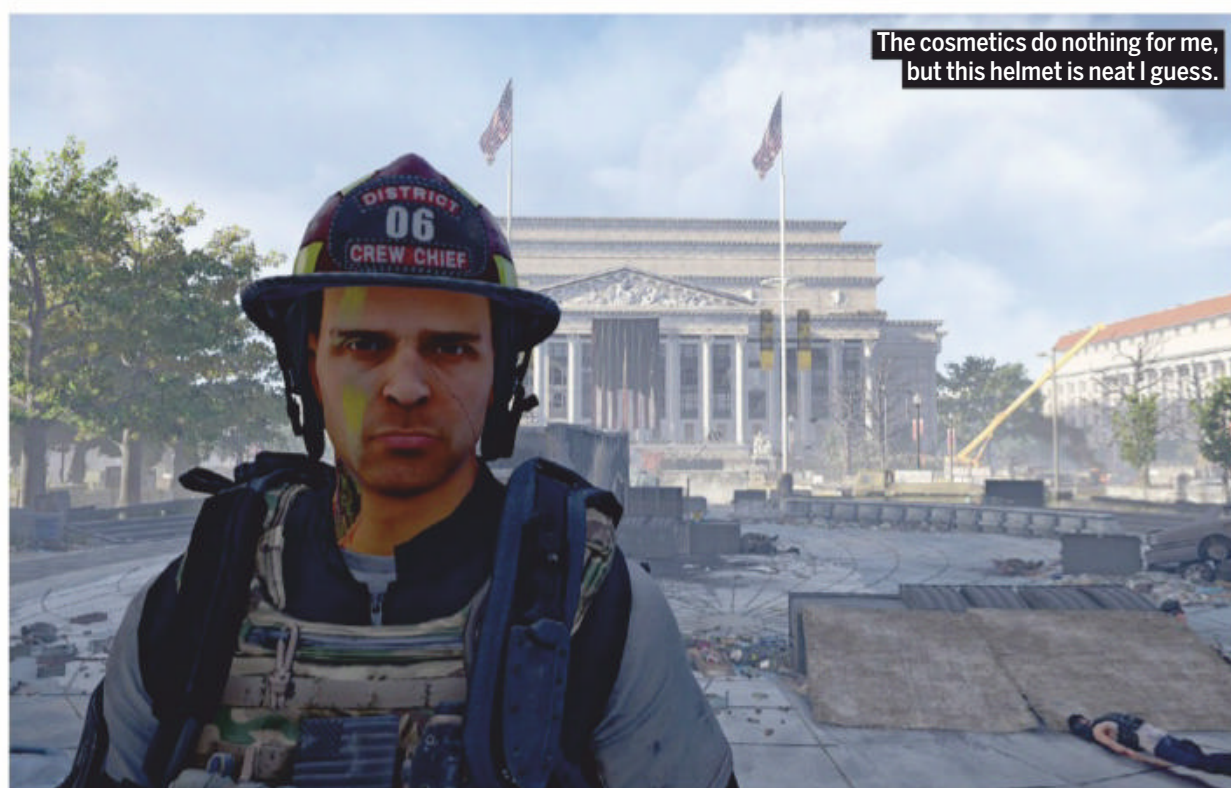
Just hiding.



Why was this planetarium left switched on?



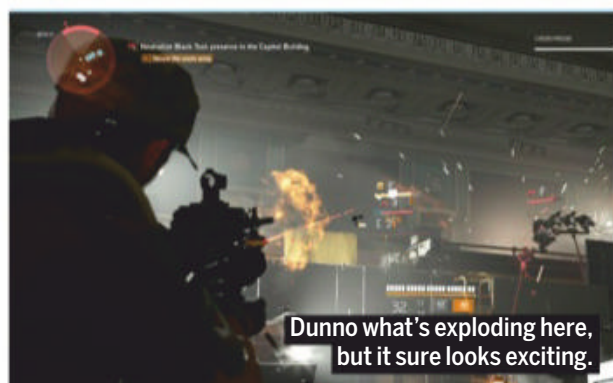
A beautiful night to fight a drone the size of a dragon.



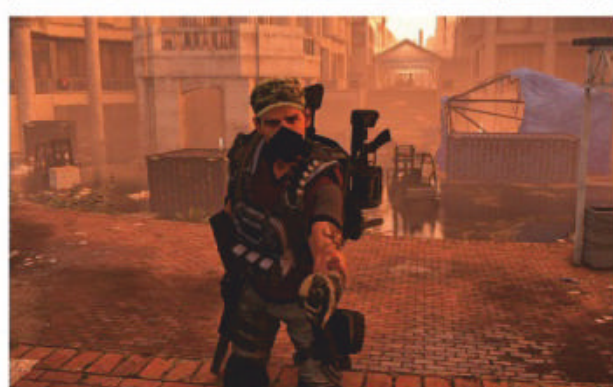
The cosmetics do nothing for me, but this helmet is neat I guess.



These Mario spin-offs get more tenuous every year.



Dunno what's exploding here, but it sure looks exciting.



The environmental design in the main missions is fab.

It helps that many of the activities dotted around DC's map are genuinely good, particularly control points, which you liberate from enemy factions with the help of AI pals. They each have the same objectives – clear the area of enemies, fight an elite, then defend the same area and fight another elite – but they're laid out differently enough that they challenge you to think about the space and enemy positioning. At endgame, too, they'll be taken back by enemies, continually climbing in difficulty as you keep reclaiming them for better rewards.

The journey to level 30 has a little filler in the form of side missions or repetitive activities, like stopping propaganda broadcasts, but not much. It's a swift journey. I can't fault *The Division 2* for a lack of things to do, though. Coming out of the barren world of *Anthem*, it's almost refreshing to be attacked by the classic Ubisoft array of map icons.

Progression is a lot comfier than the first game. You unlock skills (your character's abilities, basically) at a fast clip throughout the campaign. You can also open up variants for them with the game's plentiful SHD Tech points early on, rather than having to upgrade different wings of your base like you did in *The Division 1*. It feels much more flexible, like the developers want you to experiment with your ideal loadouts in advance of reaching the endgame. I'm particularly fond of the Hive skill, which I immediately unlocked with a Stinger variant that shoots small robot killer bees at any enemy that walks within its radius.

It's also refreshingly common to see enemies using novelty weapons and ammo types on you, sending deadly remote controlled cars in your direction, or gumming you up with the Chem Launcher's riot foam while other enemies open fire on you. This gives some real variety and surprise to the game's many shootouts.

ENTER ENDGAME

Once you hit the level 30 cap, a new faction called the Black Tusk is added to the game. You then start progressing through World Tiers, which determine the difficulty of the enemies you face and the loot you earn. You'll then revisit most of the earlier main mission locations in their 'invaded' forms, remixed with this high-tech force's new enemy types. The Black Tusk fires off



CLASSES The Division 2's endgame specialisations



DEMOLITIONIST

Get a grenade launcher that does area of effect damage, and bonuses to explosive power and machine guns.



SURVIVALIST

Improves assault rifle damage and also shotgun damage, so you have a nice short range option too.



SHARPSHOOTER

Gives you a special sniper rifle that damages nearby enemies after impact with a decompression shockwave.

explosive drones like it bought too many of them during a Black Friday sale, and sends in sniper-equipped robot dogs that look like they jogged out of a *Metal Gear* game. These invaded mission variants are a lot of fun, with enemies often spilling out of different parts of the level to your first visit, so they don't feel repetitive.

DEMOLITION MAN

If you were hoping the Black Tusk would entail an entirely new campaign, that's not really what the endgame offers here. *The Division 2* successfully feels very different after level 30 by bringing the map to life, though, with enemy movements shown on the map as they reclaim control points, and newer, tougher multi-part bounties to tick off. The Black Tusk also brings its own new activities, like dramatic battles against Batplane-sized drones. The battle for DC really feels like an ongoing struggle, and the higher threat level of activities and rewards provided by higher difficulty main missions means it feels like there's loads more to do after tens of hours.

The real sweetener at level 30 is unlocking the three specialisations, which each have their own new progression paths. They also offer their own signature weapons, which are fantastic fun to unleash, and require a specific ammo type that's a little rare. I've so far focused on the Demolitionist, with nice damage bonuses for my treasured light machine guns, and a wicked class-exclusive turret upgrade that unleashes comically deadly mortar fire. Pleasingly, you can also switch between the three at any time, and completing the upgrade tree for each will definitely take a while to tick off.

It feels like *The Division 2* has launched with an extremely healthy supply of things to do, then, but as with any promise of a deep post-game, a lot depends on what happens next – how players feel about the game after a few weeks of digesting what's here at launch, how Ubisoft reacts to that, and whether the post-release content will keep providing good reasons to continue playing. I'm particularly excited to see what *The Division's* version of an eight-player raid looks like, and I hope the planned additions to the campaign bring main missions that are as exciting as what's in here.

The hybrid PvP/PvE area The Dark Zone returns from the first game in three varieties, all a bit

different in style and layout. The Dark Zone still has the potential to create great player-generated, nerve-wracking stories, and it too is nice and generous with loot in both infected and clean variants. I really

recommend sweeping each map with a group, though.

This is a very complete-feeling follow-up to *The Division*, from a team that clearly learned a lot about its audience after a series of successful, high-value updates. Dedicated players know they want this already. For everyone else, this is an exciting, moreish shooter set in a genuinely impressive world that already offers tens of hours of enjoyable shooting, exciting skills, and cool loot. ■

The real sweetener at level 30 is unlocking the specialisations

PC GAMER VERDICT

A packed, rewarding, and frequently thrilling looter shooter that should have a bright future.

82

LANDSLIDE VICTORY

A joy in every corner, **DIRT RALLY 2.0** edges ahead of its predecessor. *By Phil Iwaniuk*

Most people don't know how it feels to flick the back end of a rally car out on the approach to a blind turn. As a result, *Dirt Rally 2.0* requires a greater level of abstract thought to assess its 'simulation' cred than, say, *Project Cars 2*. You might not have sent a McLaren P1 up Eau Rouge, but you still know how a road car feels on a road. Snarling Group B rally cars speeding across loose surface? Not so much.

That's why *Dirt Rally 2.0* exists. Since its earliest outings under the *Colin McRae* banner, Codemasters' rally series has traded on 'feeling' just right. The way its cars squirm and shift through corners, the way you can keep them *just about* under control while they power through turns at strange, unnatural angles – it's always felt instinctively realistic. *Dirt Rally 2.0* tells you how it feels to be a professional rally driver with such fearsome assertiveness that you simply believe it.

A rally stage is an assault on every sense (alright, not taste or smell), rattling the cockpit camera violently while an audio onslaught of complicated but crucially important pacenotes hits you, whether you're ready for them or not. Force feedback surges through your wheel, fizzing your brain as though you've licked a battery. Whether using a wheel (preferable) or pad, vehicles behave just as you want them to – barely tameable, occasionally balletic in their powerslides, and always

convincing. This was broadly true of its predecessor, but in truth, *Dirt Rally* never felt as scary or as taxing.

The sequel uses weather effects and time of day to create real drama. Standing water in between muddy tyre tracks glints under your headlights, dust kicks up around your scrabbling wheels, and each of the six rally locations – New Zealand, Argentina, Spain, Poland, Australia and the USA – asserts its visual identity

instantly, such is the level of environmental detail. It's an incredibly handsome game.

Back from the venerated spec sheets of Codemasters' *GRID* series is team management, which asks you to hire staff, purchase vehicles and set liveries as you decide which event to enter next – a rally or a rallycross stage. This is, as if you didn't know, the official game of the 2019 FIA World Rallycross Championship, which means eight licensed tracks spanning the globe and meticulous event recreation across several series. Rallycross featured in the original

The sequel uses weather effects and time of day to create real drama

NEED TO KNOW

WHAT IS IT?
A (sort of) licensed rally sim

EXPECT TO PAY
£45

DEVELOPER
Codemasters

PUBLISHER
In-house

REVIEWED ON
i5 6500, GTX 1070, 16GB RAM

MULTIPLAYER
Yes

LINK
codemasters.com/game/dirt-rally-2-0/



Dirt Rally too. Its inclusion here doesn't represent a leap forwards but instead a quiet fleshing out of its predecessor's skeleton.

What the two deceptively different disciplines have in common in *Dirt Rally 2.0* is that for the first few hours, you'll win them incredibly easily. That's not a humblebrag, the AI really is that forgiving. Stack it even twice or three times on a stage, and you might still expect to be towards the top of the classification with 20 seconds of penalties.

MORE ACCESSIBLE

Speaking personally, that forgiving AI led to a sensation of 'failing upwards' as I took win after win without truly mastering either car or track. It's probably intended as a means to make *Dirt Rally 2.0* more accessible, but I'm not sure it quite works. Perhaps a rally school, similar to the one prefacing the famously formidable *Richard Burns Rally*, might have been a more effective solution. Stiffer competition awaits online via custom championships, and it's here that *Dirt Rally 2.0*'s long-term appeal lies.

Dirt Rally 2.0 feels like progress. Certainly progress in the visuals, but also in the level of immersion thanks to tiny touches like driving beyond the finish line to the steward after each stage. And progress in a sense of overarching structure to single player racing, thanks to the management conceit. The only area it feels lacking, beyond the AI, is licensing. The Rallycross deal is great, but never has a game more richly deserved the WRC licence. Modders will work on car liveries in that regard but with recognisable cars and names this might have been the vehicle to bring new fans to rallying. ■

BRINGING BOXY BACK *Four cars that personify retro rally chic*



1 VOLKSWAGEN GOLF GTI

The quintessential boxy hatchback, turbocharged. Light and agile.



2 PEUGEOT 205 GTI

Remember that advert where Grace Jones drove one of these out of her own mouth?



3 BMW E30 M3

BMW haven't been nearly as sexy since they lost that shark-nose front grille.



4 FORD SIERRA COSWORTH

Like a shoebox with wheels, in the best possible sense.

PC GAMER VERDICT

Simply put *Dirt Rally 2.0* is the best rally sim around building on its predecessor's already fine foundations.

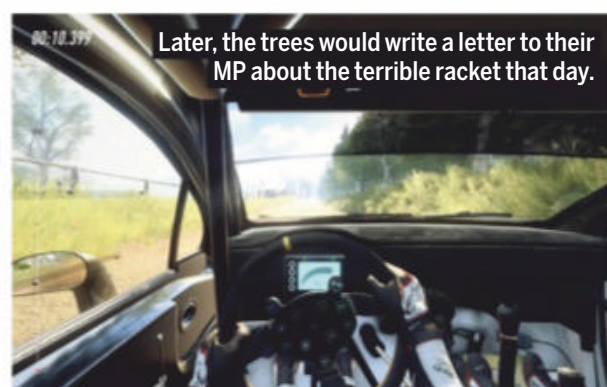
87



Early career mode's spent guiding 'vintage' bangers around at low speed.



Being bad looks pretty good in this game. In screenshots, at least. Less so on timing boards.



Later, the trees would write a letter to their MP about the terrible racket that day.



Colin's iconic Impreza. A nice nod to the man whose name launched the franchise.



Smash a headlight before a night stage and you're in quite the pickle.

HELL YES

DEVIL MAY CRY 5 is one of the best brawlers on PC. *By Tom Senior*

Devil May Cry 5 is a 16-hour exploration of the hundreds of ways a magical man might hit a demon. Nero hits demons with robot arms like a hyper-aggressive Inspector Gadget. Dante hits demons with two halves of a haunted motorbike. V lets demons do the hitting for him. All things considered, Devil May Cry 5 is one of the best games about hitting demons ever made.

You switch between Nero, V, and Dante across DMC5's 20 missions. A demon called Urizen is using a bad tree called the Qliphoth to drain the city of all its blood and it's up to the trio to fight through his minions to stop him. The story is preposterous, genuinely funny at points, and supported by earnest performances and quality performance capture. Though the areas you visit can be simplistic and washed out, it's a decent enough setting for combat encounters.

In classic Devil May Cry fashion you clear the level room-by-room and collect ranking scores from each encounter that feed into an overall score for the chapter. The point isn't merely to survive, but to reach the upper echelons of the scoring system and claim the coveted, ridiculous 'Smokin' Sexy Style!' title.

Each character has their own fighting style, but there's plenty of opportunity to find your own preferred approaches within each moveset. Nero's basic abilities let him attack with his sword and revolver. You can hold the fire button to

charge the gun and deliver bullets that can stagger enemies, and you can rev your sword like a motorbike to power it up and access fiery new moves. Nero can also whip enemies closer or pull himself towards larger enemies with a tether he fires out of his right arm.

The next difficulty level remixes every combat encounter

Within this stable framework of go-to combos you use Nero's disposable robot arms to mix up combos or move around. The Gerbera arm lets you fire shockwaves that can propel Nero away

from enemy attacks, and the Punch Line can detach and fly around as Nero rides it. The arms break if you take a hit during their special move, but you tailor an arsenal of up to eight arms before a mission starts and detonate them whenever you like. Some arms do give you an advantage over certain enemies, but the system is lax enough to let you pick the arms you really enjoy using in any situation.

If Nero was the only playable character this would still be a fine game, but Devil May Cry 5 offers so much more. Dante can switch between four melee weapons, four

NEED TO KNOW

WHAT IS IT?
Third-person brawler starring three demon hunters

EXPECT TO PAY
£45

DEVELOPER
Capcom

PUBLISHER
In-house

REVIEWED ON
RTX 2070, i7-8700, 16GB RAM, 512GB SSD

MULTIPLAYER
Not yet

LINK
www.devilmaycry5.com



ranged weapons, and four combat styles on the fly. All of Dante's weapons are fun, but my favourite is the hat, which captures DMC5's wilful tendency to be incredibly smart and stupid at the same time. You can build your whole combat style around the hat's clever orb switching mechanics. More importantly, you can make any enemy in the game wear a dumb hat. It even works on giant tentacle-faced rhino monsters. It even works on bosses.

DEMON PETS

V is the palate cleanser of the three. He struts around the edges of the battle reading poetry from his book as his pet demons rip up enemies. Once you've landed enough hits to build up your super gauge, you summon a massive oily golem called Nightmare to clobber everything into a near-death state. The demons can't actually kill anything, so you have to teleport V around the battlefield to deal final blows with his cane.

Nero, Dante, and V don't reach their full potential until the end of your first run through. The next difficulty level remixes every combat encounter and lets you keep all of your unlocks. The refresh is so extensive that it makes the main campaign feel like a tutorial, and this is before Capcom adds the Bloody Palace gauntlet mode in April.

I've been hitting demons in this game for 19 hours so far, and I can easily see myself putting in 19 more. The setting lacks the flair and imagination of the genre behemoth Bayonetta, but there's a greater variety of combat styles and a higher degree of challenge. And that's what will keep me playing until Capcom hopefully releases another one someday. ■

ROCK AND B-ROLL *Scenes from DMC5's bizarre rehearsal cutscenes*



NICE MASK
The demon Urizen is played by this man in a fetching mask.



BOXCAR RACER
A cardboard box stands in for Nero's Devil May Cry van.



SQUAWK
V's demon eagle is represented by a man dressed in a bin bag.



STICK FIGURES
More complicated stunt scenes require action figures on sticks.

PC GAMER VERDICT

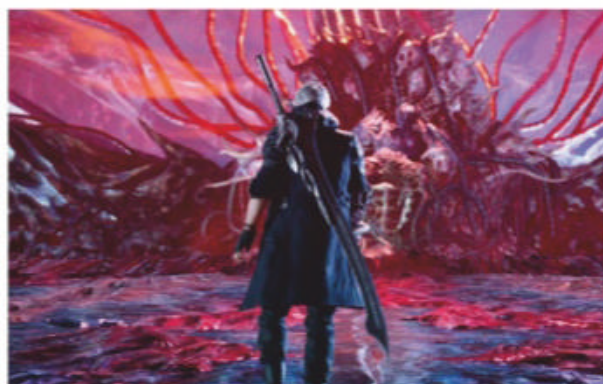
Three great characters and a beautiful and fluid combat system make this a must-buy for combat game fans.

90

Cutting edge face capture allows for detailed melodrama.



You fight rubbish insects at first but soon move to demon bosses.



Massive swords! Everyone here is overcompensating.



You can buy a real version of Nero's coat. It is not advised.



Dante – the best lad – destroys guys with his hat.

BABA IS OOH

Pushing and shoving the rules in the wonderful **BABA IS YOU**. By Philippa Warr

Baba is You, and its developer Arvi 'Hempuli' Teikari, found themselves in the spotlight after a build of the logic puzzler won over IGF Award judges in 2018. With nominations in four of the eight categories, Teikari beat out the likes of *Into The Breach* to take home the Excellence in Design award as well as pocketing the Best Student Game prize. Now the full release is here it's easy to see what the fuss was about.

Baba is You is a spatial word game, of sorts. It combines programming-style commands with *Sokoban*-esque block pushing to create hugely inventive and varied puzzles. By rearranging the blocks with words on them you can issue new rules for the world or find new ways to interact with the space. You can even totally rewrite the win conditions for a level.

It's an easier concept to understand by playing than talking, so here's an example.

In one level you start as a rabbit in a walled room. Inside the room with you are three text blocks – "Wall", "is", and "stop". They're connected in a straight line so the walls currently stop your character from passing through them. If you nudge any of the blocks out of line the walls no longer stop you and you can walk through them.

The blocks which make a win condition for the level aren't yet connected in a line. The simplest solution to that is to push the blocks marked "flag", "is" and "win" into a line. After that, walking to the flag

will complete the level. But there are other solutions which immediately start to show you how many possibilities the system involves. You could mix blocks from the first and second room to write "Wall is win".

That lets you finish the level by touching any of the walls.

A third solution is to make use of the blocks which determine your avatar – they read "Baba is you" in a vertical line. Don't disconnect them,

otherwise "you" no longer exist in the level and cannot interact with it. But you can use "Baba" as the start of a horizontal command, a bit like a programming crossword puzzle.

Write "Baba is win" and it makes you the win condition of the level. There's much potential and it's so satisfying!

If you put yourself in an impossible situation – for example, disrupting the set of blocks which tells the level what you are and triggering an existential conundrum – you can either go back a step (or as many steps as you need), or reset the whole level and start again.

Write "Baba is win" and it makes you the win condition of the level

NEED TO KNOW

WHAT IS IT?
Sokoban meets programming in this word-pusher puzzle

EXPECT TO PAY
£00

DEVELOPER
Hempuli Oy

PUBLISHER
In-house

REVIEWED ON
Windows 10, 16GB RAM,
Intel Core i7-5820k,
GeForce GTX 970

MULTIPLAYER
None

LINK
hempuli.com/baba



It's an absolute delight. Some levels feel a bit overwhelming but you soon get into the habit of reading them. For example, commands jammed into a corner can't be moved so they act as the basic truths for the scene, narrowing down the possible solutions. If there's space next to them, that might be a hint that you can modify them with an intersecting command. The puzzles then become manageable (even if they're still daunting).

The difficulty curve for the earlier worlds feels a little scattershot, but that's largely because players grasp different solutions at different rates which makes accurate difficulty curves something of an elusive target for logic puzzles. That settles down after a couple of worlds and I'm now at the point where I'm gradually chipping away at later-game puzzles, rotating through them in the hopes that when I come back to a previous level I'll see it afresh.

WORDPLAY

The aesthetic is simple and works better for simpler levels. When there are a lot of commands at play it can be hard to keep them all straight, especially when they're spread out in corners of the screen. Pausing lets you recap the rules currently active, which helps, but the process adds mental load. One of my favourite moments came after the introduction of the "has" block which adds the concept of objects containing other objects. Manipulating that command to cross a river was a low-key moment of real joy!

Baba is You deserves its critical acclaim. It's part logic puzzle, part existential quandary, part love letter to how much potential is contained in the building blocks of language. ■

VOCABULARY LESSON What these word combos actually mean



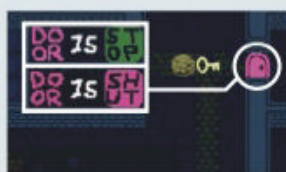
ROCK IS PUSH

You can move boulders around by pushing them. Without "is push" you'd just walk through them.



TEXT IS FLOAT

Floating text won't be affected by objects that "sink" or "teleport" what's on top of them.



DOOR IS SHUT AND STOP

The door can be removed using any object described as "open".



SKULL IS DEFEAT

This one is pretty straightforward. If you walk into any of the skulls, you lose.

PC GAMER VERDICT

Baba is You manages to take the familiar idea of nudging blocks and solving puzzles in a fresh direction. Brilliant.

90

DRUM ATTACK

Colour and music elevate **APE OUT's** bloody shove combat. *By Tyler Wilde*

An escaping ape only has a few options, one of which is shoving her captors into walls so hard that all the blood flies out of their bodies. That's the plan for *Ape Out's* ape, and it's pretty much the whole plan. After the first human goes splat, the percussive jazz kicks in, and a dizzying improv violence session begins. While *Ape Out* starts to drag after the first couple of acts, it's hard to put down anyway, because it feels so consistently cool.

As the ape, you charge across procedurally-generated mazes from a top-down view, shoving, grabbing, and tossing the human-shaped enemies in your way. It's like a twin-stick shooter, where one analog stick controls movement and the other rotation, but your guns are your biceps – you can shove humans into walls or each other, as well as grab them, which causes them to reflexively fire their weapon wherever you point them. I preferred the mouse and keyboard controls, where WASD moves and the mouse controls the direction I'm facing.

You're fragile here, but not *Hotline Miami* fragile. You're an ape. Nothing

ever slows you down, nothing can stop your shoves. The biggest enemies splat just as hard as the smallest. A few opportunities for added style are satisfying, too. In one set of levels, you can push enemies

out of skyscraper windows, whipping them toward the street with fantastic force.

This all happens fast. *Ape Out* demands snap judgments. I surprise a bomb guy and shove him toward another bomb guy,

exploding them at a safe distance from me. Immediately I have to grab a shotgun guy before he can shoot, spin him around and chuck him at another shotgun guy to block his shot and double-splat them. Then I smash through a glass pane and shove three more guys into splats along a corridor, because sometimes tactics aren't needed, just ape arms.

As I improvise through levels, the jazz percussion improvises along with me, rising to the action and throwing crashes and squeaks and snares and bells in to mark each kill. *Ape Out* is divided into four eight-level 'albums,' each with its own rhythms and instruments and themes. Together with the stark, unstable colour fields that make up the levels, the weird perspective, and the nonsensical, randomised maze layouts, the high-tension music induces the anxiety of being an animal in an unfamiliar environment, lashing out against what's hurting me, scrambling and circling back and shoving everything.

There are 32 levels, plus one bonus level, and while they aren't exceptionally long, they aren't

A few opportunities for added style are satisfying, too

NEED TO KNOW

WHAT IS IT?

A top-down action game about an ape who's had enough

EXPECT TO PAY

£11

DEVELOPER

Gabe Cuzzillo, Matt Boch, Bennett Foddy

PUBLISHER

Devolver Digital

REVIEWED ON

GeForce GTX 980, Core i7-6700K, 16GB RAM

MULTIPLAYER

None; but there are Arcade leaderboards

LINK

apeout.com

bite-sized, either. It's frustrating to die just before reaching safety, and the ape can't take many shots. While completing every level only took me a few hours, *Ape Out* sadly felt sluggish by the time I got to the third album. The difficulty feels too dependent on randomisation, and many of the levels are disappointingly similar to each other.

APE ESCAPISM

After my delirious early experimentation, I wondered where this strange game about splats and snare drums was going to go, and I wasn't too impressed when it added exploding barrels. More variety comes from new enemy types, but they're mostly just annoying: flamethrower guys are best avoided, and rocket launcher guys ruin everything if they spawn in too large a number or at an awkward spot.

The procedural generation and randomised enemy placements don't help. Like *Super Meat Boy* and *Hotline Miami* (the first one), *Ape Out* takes pride in killing you, but dying rarely feels like the learning experience it is in those games. It's just something that happened because I got mobbed by too many guys, or went the wrong way without any way to know what the right way was, as the level changes every time.

Ape Out is so thunderously stylish and thematically strong that I like it even though it loses its thrust so quickly. It evokes anxiety and fear with brutal efficiency, so if you've ever wanted to feel like a cornered animal – or me whenever someone asks me a direct personal question – here's your chance.

Those uncomfortable feelings just aren't balanced with quite enough triumph. ■

WHAT APES WANT

Motivate the apes



DONKEY KONG

To kidnap princesses.



APE ESCAPE

To avoid being kidnapped.



SUPER MONKEY BALL

Monkeys aren't apes.



APE OUT

To escape from skyscrapers.



RAMPAGE

To punch skyscrapers.



OVERWATCH

To do science?

CONCLUSION

Apes are full of contradictions.

PC GAMER

VERDICT

Ape Out is a sensational audiovisual experience that unfortunately starts to drag around halfway in. Also, jazz.

70



Splat.



If you're on fire, they run away, because apparently a giant ape isn't scary enough.



Each album has a brief, chic intro.



The death screen displays your progress through the maze, and also that you died.



He tripped, I swear.



The blood splatter decals are just perfect.

Not something you want to see in your apartment.



Notes and letters help you piece the story together.



You're never entirely sure what's real.

FAMILY MATTERS

DEVOTION is a chilling and intelligent psychological horror. *By Andy Kelly*

Taking place across seven years, *Devotion* is a psychological horror game set in a single apartment in 1980s Taiwan. As you progress through it, this claustrophobic living space shifts around you and tells the fragmented story of a family who once lived there.

In one fragment it'll be warm, cosy, and lived in. In another, moving boxes sit unpacked as a crackling radio plays a Taiwanese pop song. The attention to detail, and the fidelity of the environment, is incredible. Grubby textures, atmospheric lighting, and convincing piles of clutter make for an impressively realistic setting. Despite being developed by a small team, *Devotion* has the production values of something made by a much bigger studio – albeit in a confined space.

Sometimes the things you see in the apartment are more surreal: a red umbrella floating mysteriously in mid-air. A porcelain doll skewered by hypodermic needles. Eerie mannequins staring at you with blank expressions, moving when your back is turned. The horror in *Devotion* is subtle, understated, and deeply creepy. It's also a game you'll want to

play with headphones, because the atmospheric audio is sensational, particularly the use of music and radio broadcasts.

The game is entirely first-person and movement is measured and slow, making every moment where you turn a blind corner genuinely unnerving. The developer, Red Candle, has proven itself with this and its previous game, *Detention*, to be a master of restraint. It knows when to hold back, which makes the times when something more overtly scary

happens doubly powerful.

But what makes *Devotion* special is that it's more than just a ghost story. On a deeper level it's about the tragedy of the people who lived in the apartment – a gravely ill daughter, a husband resentful of his wife's success, and the strain that puts on the family. You view the story through each family member's eyes

Sometimes the things you see in the apartment are more surreal

NEED TO KNOW

WHAT IS IT?

A psychological horror set in a creepy apartment

EXPECT TO PAY

£14, although, as of writing, the game has been temporarily removed from sale. For more details, see bit.ly/devotionsteam

DEVELOPER

Red Candle Games

PUBLISHER

In-house

REVIEWED ON

GTX 1080, Intel i5-6600K, 16GB RAM

MULTIPLAYER

None

LINK

www.redcandlegames.com

and Red Candle handles the human side of the story with nuance.

DARK MATTER

Some of the horror imagery in *Devotion* is a little hackneyed, and stuff you've seen in a dozen other first-person horror games. But when it flexes its imagination and dreams up something entirely of its own making, it can be very disturbing.

Much of the story is relayed through documents and TV shows that play on the family's chunky old television set. These shows, and the various papers and letters you pick up, are really convincing, and slowly flesh out the family's history and the truth of what happened to them.

Devotion's attention to detail, refreshing restraint, and deep, layered storytelling make for a fantastic horror experience. At just under three hours it's over a little too quickly, but other than that, this is one of the best and most unsettling modern horror games on PC. ■

PC GAMER

VERDICT

Tense, cerebral, and grotesquely beautiful, *Devotion* is a deep and disturbing horror experience

88



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xsolla.com

STATE OF THE ART

EASTSHADE makes screenshotting an intrinsic part of play. *By Philippa Warr*

Do you know who I admire? Anika from *Eastshade*. Anika lives in a little hut between the port of Lyndow and the city of Nava in the game. She's obsessed with owls. Can't get enough of them. When she's not sitting in her hovel she's tramping through the ferns making hooting noises.

I, on the other hand, am playing a travelling artist. I came to *Eastshade* to paint pictures in tribute to my mother via a type of in-game screenshotting. It's this art focus which sets *Eastshade* apart from other games which muddle about in those high fantasy settings.

The game opens with your character being shipwrecked. You wake up in a cave just outside the tiny port of Lyndow and start to explore, quickly accumulating a to-do list, idly picking up sticks and flowers, and noting how picturesque everything is. You learn how to make canvases out of bits of wood and fabric under the guise of teaching a little kid in Lyndow how to do it.

Painting involves picking a canvas – either a fresh one or a used one you're happy to paint over. Once you've picked your surface you compose the image. This is done by cropping the view you have onscreen using a rectangle guideline. Pressing E paints whatever's in the rectangle, applying some effects so that what's

shown on an easel, which appears in the world, isn't a straightforward screenshot, but takes on a painterly quality. Each painting costs inspiration, which you collect by visiting new areas or doing tasks.

Games being pretty isn't unusual, but *Eastshade's* design is closer to

that of a grand garden. The buildings feel more like follies than functional houses, the bridges come straight from Arcadian paintings, and curated lines of sight are key.

Capturing specific objects, people or areas

of *Eastshade* allows you to fulfil commissions or make progress in quests. The main purpose of the game is to collect four paintings which correspond to your mother's memories of the place, but in trying to reach those locations you end up following little side stories – a religious conflict involving hallucinogenic tea, a neighbourly dispute over whether a guy who keeps getting jars stuck on his head is a good parent, a tiny detective quest involving a stolen book.

The buildings feel more like follies than functional houses

NEED TO KNOW

WHAT IS IT?

A relaxing first person open world art creation game

EXPECT TO PAY

£19.50

DEVELOPER

Eastshade Studios

PUBLISHER

In-house

REVIEWED ON

Windows 10, 16GB RAM, Intel Core i7-5820k, GeForce GTX 970

MULTIPLAYER

None

LINK

www.eastshade.com

There's an element of crafting here too, although it's not particularly complex. You can use what you gather to brew teas which offer different effects, trade feathers for cash, or build a raft or a reed boat to cross the water. I found that as long as I remembered to pack my boat up when I'd finished using it I only needed to craft one.

The only time I was really paying attention to my resources was when I needed to make money. Figuring out how to catch the largest kind of fish meant I could soon afford a coat and thus stay outside during the freezing night. Traipsing round, picking up feathers helped me pay the bridge toll and leave Lyndow.

SHE'S A HOOT

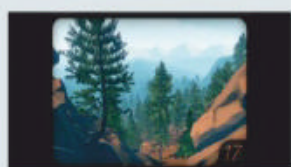
Eastshade isn't huge – I finished in about ten hours – but it is charming. There are memorable characters – Anika and her owl obsession, the ship's captain who hates you because you don't understand how much she loved her boat, the night drummers – and the screenshot mechanic is enough of a point of difference that the fairly familiar story setup still feels fresh. You also see your own paintings on people's walls as you turn in commissions.

The game crashed a lot so I'd advise saving frequently. Some of the tasks don't flow smoothly. I could also do with a few more map markers, and sometimes the painting interface didn't register my clicks.

But even with these quibbles, using image capture as part of the game is fascinating. Tying it to a finite resource and making you compose a shot before you paint means you make decisions about what to capture in a different way to normal screenshotting. ■

TAKE YOUR BEST SHOT

These games have an interesting take on image capture



FIREWATCH

Use the in-game disposable camera to snap a limited number of shots, then order them as real prints.



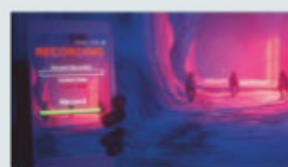
NO MAN'S SKY

Developed with DeadEndThrills' Duncan Harris, NMS' photo mode offers filters, lighting control and more.



BIOSHOCK

The research camera lets you learn enemy weaknesses and gain bonuses by taking photos of foes.



THE BLACKOUT CLUB

Use the camera on your in-game phone to record evidence of spooky goings-on in your hometown.

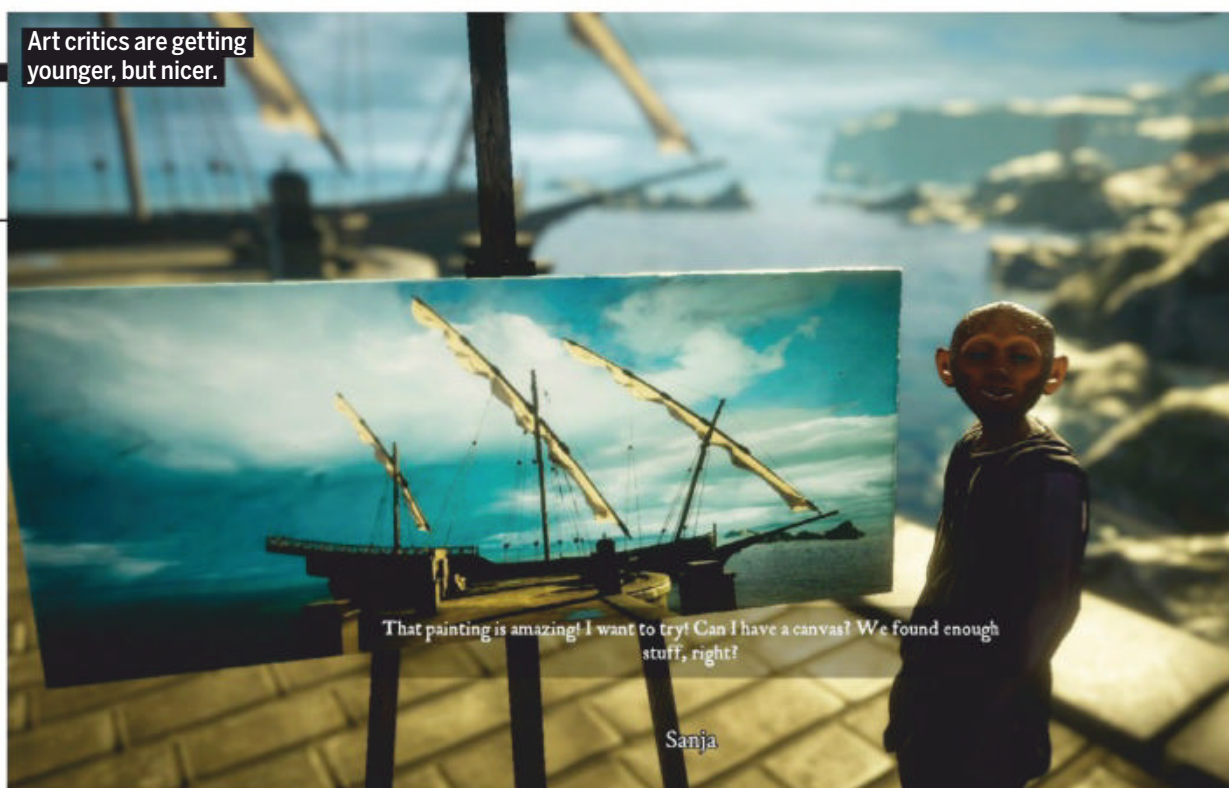
PC GAMER

VERDICT

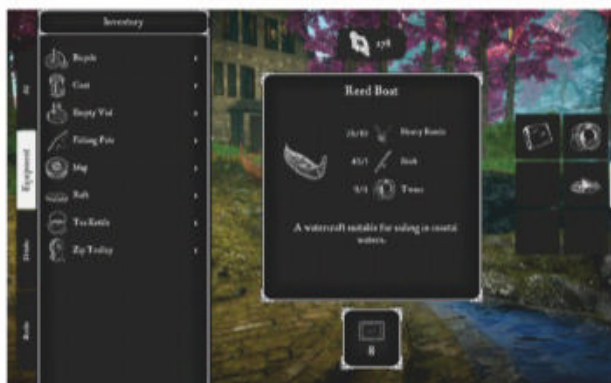
Eastshade is a charming travelling artist adventure which uses image capture in interesting ways.

78

Art critics are getting younger, but nicer.



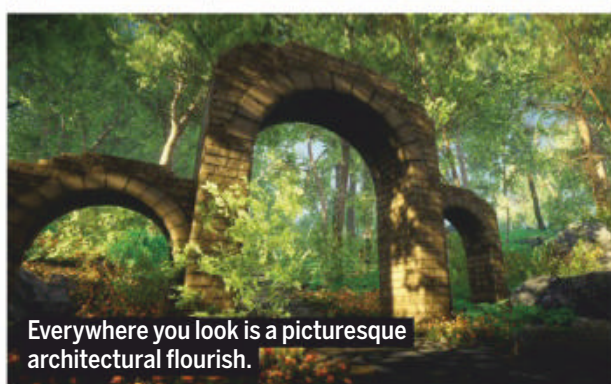
Painting from a crouching position makes for interesting angles.



You can use the window glass for a distorted painting effect.



Everywhere you look is a picturesque architectural flourish.



ANTHUMBS DOWN

ANTHEM is deeply flawed and frequently frustrating, but it sure is gorgeous. *By Steven Messner*

Anthem is a deceptive game. From the first moment I stepped into its world and started meeting its characters, I was stunned by how gorgeous everything is. The jungles of Bastion are jaw-dropping, an alien landscape full of fantastic vistas and wondrous ruins. Likewise, *Anthem's* characters are alluring. I was fascinated by how lifelike their expressions were, and the voice acting for the main characters is charming and expressive.

That's the problem with *Anthem* – it coasts entirely on the momentum of its stunning first impression. Once that new game smell began to fade, I started to see *Anthem* as a derivative, buggy, and at times exasperatingly soulless world.

On a hostile, alien planet, the human race has etched out a meagre survival thanks to the noble efforts of a loose guild of exosuit-wearing warriors called Freelancers. A long time ago, a mysterious alien race shaped the planet by harnessing the Anthem of Creation, a mystical energy that permeates everything. Then those 'Shapers' disappeared and left all their Anthem-infused power tools still running, which causes all sorts of apocalyptic accidents that Freelancers are tasked with preventing.

It sounds exciting, but *Anthem's* story feels half-finished. Fort Tarsis, my home base that I return to after missions, is a narrative prison where

the story and characters are locked away from everything else. Most of these characters never physically accompany me on missions and are always standing in the same spot. They feel like quest givers in an

MMO – all that's missing is the golden exclamation mark above their heads.

I never really get the sense that we're spending quality time or enduring hardships together, which makes these regular insights

into their lives predictable and too easily won. When I should have felt a resolve to protect them, I was mostly indifferent – which is more than I can say about *Anthem's* villains, who are given so little screen time that I barely understand their mission, let alone their motivations.

IN A BLENDER

As mission after mission blends together, I rarely have a clear understanding of what's happening. The story provides a never-ending

It sounds exciting, but *Anthem's* story feels half-finished.

NEED TO KNOW

WHAT IS IT?

A co-op third-person RPG shooter

EXPECT TO PAY

£49.99

DEVELOPER

BioWare

PUBLISHER

EA

REVIEWED ON

RTX 2070, i7-8700, 16GB RAM, 512GB SSD

MULTIPLAYER

Four-player co-op

LINK

www.ea.com/games/anthem

supply of MacGuffins to chase – Shaper relics, ancient suits of armour, mysterious rituals. *Anthem* is so full of mysticism and ambiguity that it feels like an excuse to not adhere to the logic of its own world.

Fort Tarsis is also filled with secondary characters who have isolated stories I uncover bit by bit each time I visit. These residents feel superfluous and our exchanges are often awkward and hamfisted, like the time I pretended to be a delusional mother's dead son to help her reconcile his death. Talking to these Fort Tarsis locals doesn't open up interesting avenues in the main story or change how I interact with the settlement in any meaningful way. It makes me long for BioWare games of old when choices I made had consequences.

I'd ignore all this to focus on combat, but after every mission I'm dumped back into Fort Tarsis even if the first thing I'm going to do is turn around and start another mission. Quest givers are cruelly scattered to each of its corners, forcing me to slowly walk its unchanging streets hundreds of times just to pick up quests, turn around, and immediately walk back. The entire settlement feels like a waste of time, and that's exacerbated by *Anthem's* incredibly long load times.

Even on an SSD, loading screens can take upwards of 50 seconds, and I often have to wait through several back to back loads just to get where I'm going. It's common for missions to be interrupted by loading screens between zones and when I respawn, and there's even a short loading screen just to access The Forge where I can change my gear.

HEART OF RAGE

The jungles of Bastion are ridiculously pretty and soaring through them with my squad before each mission is sublime, but the missions themselves are boring and repetitive. Whether I'm doing a story mission, a randomised contract, or

SUIT UP *Get to know Anthem's four classes of javelin*



RANGER

This jack-of-all-trades is a good pick for starting out. Its wrist-mounted rocket launcher is great at setting up combos.



INTERCEPTOR

This melee specialist's dual daggers can detonate any combo. The Interceptor also offers unparalleled mobility.



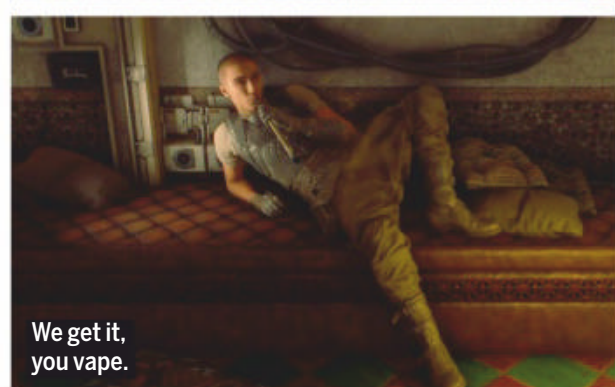
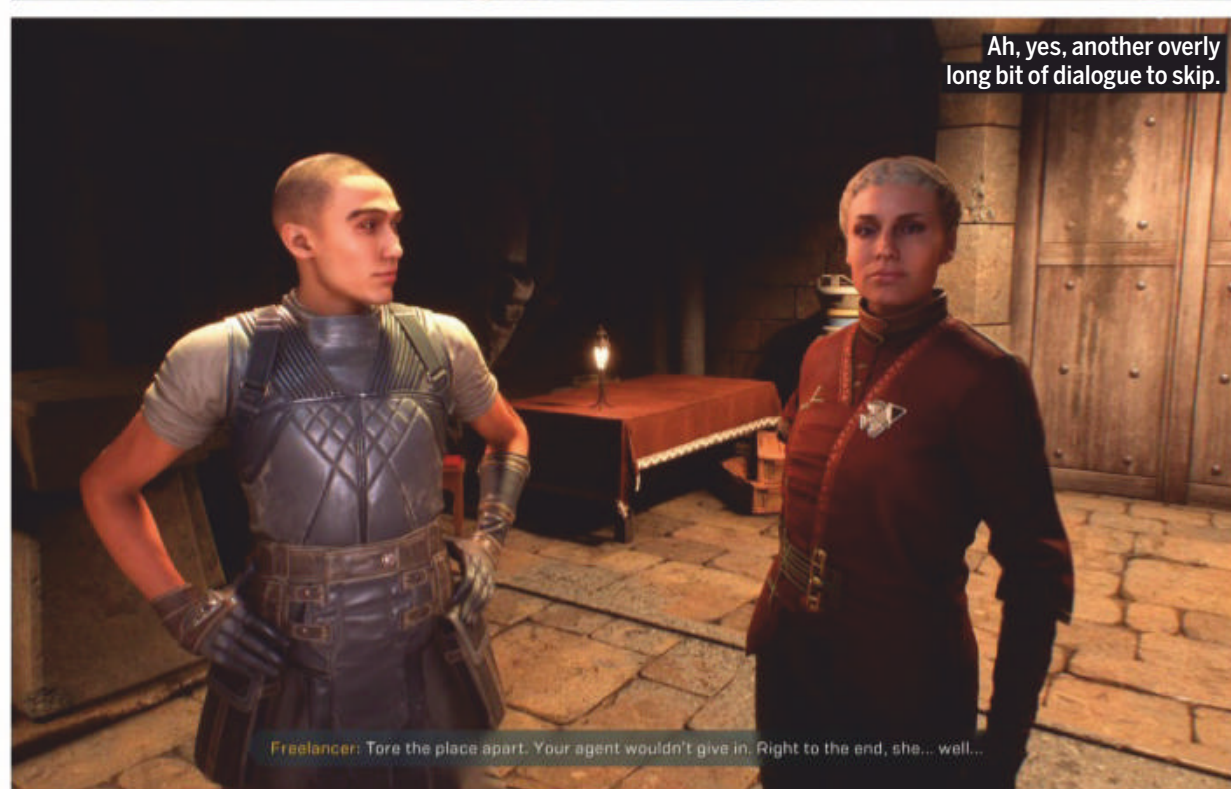
STORM

This mage-style javelin is a total blast. Hover over the battlefield raining down elemental abilities that obliterate enemies.

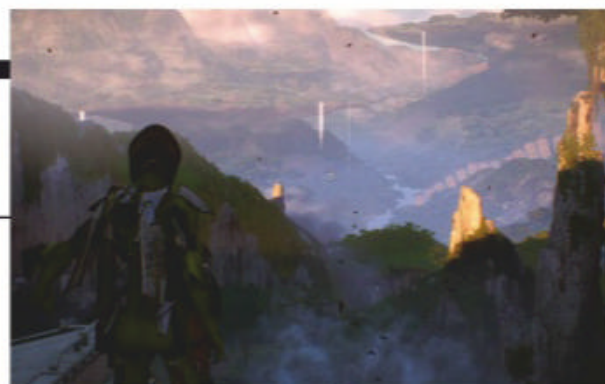


COLOSSUS

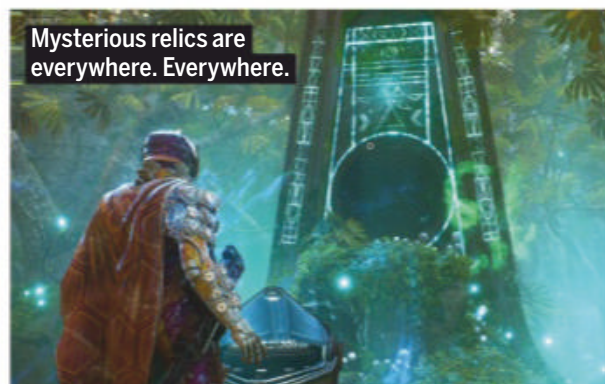
This thicc javelin has a big shield and can taunt enemies into attacking it instead of the squishier members of the group.



Storms can also create a shield to hide behind.



Mysterious relics are everywhere. Everywhere.



It is fun to customise your javelin.

Underwater flying? Not fun.



Over-water flying? Fun.

one of *Anthem's* Strongholds (20-minute dungeons that work like Strikes in *Destiny 2*), there are maybe half a dozen mission objectives that *Anthem* cycles between again and again and again. It doesn't matter if I'm silencing a Shaper relic that could destroy the world or looking for a lost scientist, I know that at some point I'm going to have to defend a specific point for 30 seconds or use the radar on my HUD to find hidden objects and then bring them somewhere.

Nearly every mission follows the exact same structure: fly a few minutes to a location, complete the objective, and repeat that process two more times until the mission is over. Though *Anthem's* world feels large at first, by the end of the campaign I had fought in the same handful of arenas and caves plenty of times.

Missions that task me with shutting down the highly volatile Shaper relics are especially disappointing. Characters back in Fort Tarsis regaled me with crazy tales about Shaper relics inverting gravity or teleporting people into alternate dimensions – all cool stuff that I'd love to experience. I never do. The first Shaper relic I silenced summoned ice dogs. Ice dogs. I've silenced dozens more since then and it's always just an excuse to summon some mundane enemies to kill.

It's a good thing that *Anthem's* combat is mostly enjoyable, at least at lower difficulties. Each javelin is like a typical RPG class, with three types of abilities you can

augment as you loot more gear. I'm particularly fond of the Storm, who channels the elements into explosive area-of-effect spells that can obliterate entire packs of enemies. Every javelin is fun to play, though, and their abilities erupt with all the flash and force of a nuclear bomb.

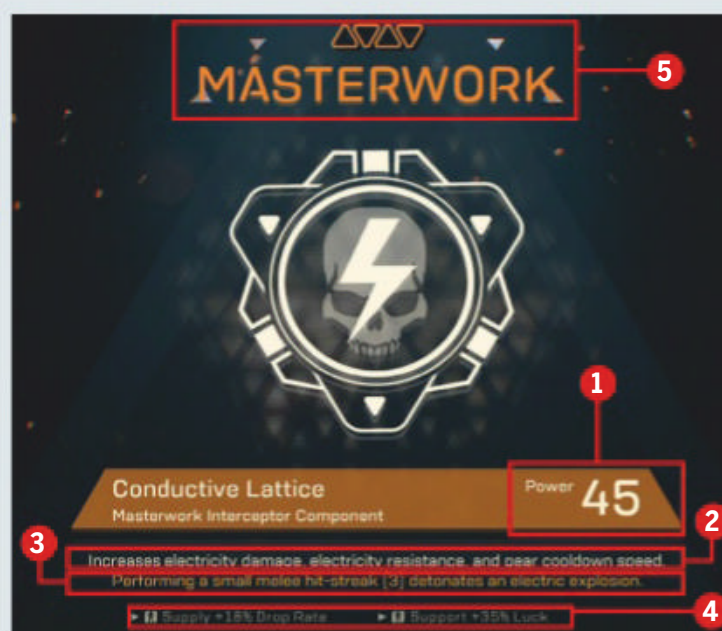
The heart of *Anthem's* combat is the combo system, which requires that teams work together to first afflict enemies with a status effect from one ability, called a 'primer', before hitting them with a 'detonator' ability that triggers a combo and deals massive damage. It's a lot of fun to pull off – not least because the sound effect that indicates a successful combo is so satisfying. Layering these abilities is necessary to efficiently deal with enemies on

GAME CHANGER

Masterwork loot, explained

1 An overall approximation of power. Raising your overall power will help you in higher difficulties.

2 This is a description of the basic function of the item and doesn't change regardless of loot tier.



3 Masterwork and Legendary items come with a special perk, often changing how you fight.

4 Modifiers are randomly generated and cannot be changed, so hopefully you get some good ones.

5 This, along with the colour, indicates rarity. At level 30, it's only Masterwork and Legendary that matter.

higher difficulties, so it's baffling that *Anthem* leaves the combo system almost entirely unexplained except for an entry in the tutorial section of the in-game encyclopaedia. If I went into *Anthem* without knowing anything about it, I might not even realise it exists.

That lack of clarity extends to *Anthem's* entire loot system. Gear has boring, aimless modifiers that are often incomprehensible, and there's no screen showing the cumulative total of my javelin's various stats.

I was 34 hours into *Anthem* before I found a piece of loot that actually excited me. It's a Masterwork-tier light machine gun that makes me detonate a combo on nearby primed enemies when I reload. Until that

point, even 'Epic' loot was just a linear power increase with boring modifiers like "+1% Heavy Pistol Damage". *Anthem's* loot is so shallow it could've just been a skill tree.

MASTERWORKS ALL

Now that I'm deep into *Anthem's* endgame, the gear is getting more exciting at the cost of combat being more aggravating. Calling it an endgame might be giving *Anthem* too much credit, since the only thing that changes is that I have more challenging missions and two new Strongholds – one of which is actually just the last story mission. The biggest difference is the addition of Grandmaster difficulties, three extra tiers of difficulty that

scale up enemy health and damage to absurd degrees but offer a greater chance to earn more powerful gear.

Playing on these difficulties really begins to expose the deep cracks in *Anthem's* combat and approach to endgame. On lower difficulties, fighting is enjoyable because I can be hyper-aggressive and fly around diving at enemies like a robo-hawk. But on Grandmaster, enemies are so fatal that even a single hit can knock me into a downed state. That kind of challenge requires a level of precision that *Anthem* just doesn't have, and it's made me acutely aware of how janky combat actually is.

Enemies rarely telegraph their deadlier attacks, which means I'm constantly being one-shotted by hits I didn't see – or worse, attacks I did see and dodged but that killed me anyway. Instead of flying around like Iron Man laying waste to my enemies, I'm hiding behind rocks scared to stick my head out in case some unseen attack is going to flatten me instantly. Grandmaster difficulty just doesn't play to *Anthem's* strengths, making the whole endgame feel sluggish and dull.

BioWare has detailed some of what will be coming in the next few months. As a live service game, it's reasonable to expect that *Anthem* will change a great deal, and BioWare seems responsive to feedback. But I'm not going to hold my breath. ■

PC GAMER VERDICT

Anthem's disjointed story, boring loot, repetitive missions, and shallow endgame are all disappointing.

55



TRIAL BY TYRE

TRIALS RISING pays off on 20 years of push-bike polish. *By Natalie Clayton*

Trials has come a long way. I still remember it as something played between classes, after working out what flash game portal the school hadn't blacklisted from the network. It's been almost two decades since its first outing, but 20 years of polish and experimentation haven't hidden the core of what made *Trials* so good. *Trials Rising*, RedLynx's latest take, is a shining example of why that is.

Once again, you manoeuvre your rider across a series of obstacle laden, sidescrolling tracks. Trials is all about small corrections and adjustments as you lean forwards and backwards to land jumps and cross piles of debris.

The tracks are micro-stories, both mechanically and in the absurdity behind the main event. Pacing is perfected in each course, leading effortlessly from a relatively-gentle intro to the track's motif, to a setpiece puzzle leading into the roaring finish.

In *Trials Rising* those backgrounds have been taken to the extreme. A jaunt through a movie set will take you through an explosive tour of Hollywood genres, even cutting away from grey props and scenery to show the CG alien horror-show unfolding on camera.

Another has you racing through an old Soviet missile base – rockets launching closer and closer before the track ends with your hapless

rider blazing into the stars on the door-handle of an old Vostok.

Trials Rising is playful in perspective. The 2.5D control never changes, but the path taken winds back and forth through a lively, dangerous world.

Ubisoft RedLynx gets a lot of mileage out of the relatively simple setup. Even within each of the game's nine main leagues, there's a wealth of visual and mechanical variety.

Rising adds a number of new ideas to the *Trials* mix. The metagame brought in by Contracts isn't hugely compelling, but the idea of mixing up a time-trial with new goals for new gear is. Tandem bikes offer a novel, wonky mode for local co-op partners, and each league ends with a 'stadium' series of head-to-head races.

There's a new University of Trials tutorial mode headed up by Professor FatShady that does a fair enough job of explaining the new mechanics. It does suffer a little from telling, not

Another has you racing through an old Soviet missile base

NEED TO KNOW

WHAT IS IT?

Big jumps, wild stunts and horrific crashes. On bikes

EXPECT TO PAY
£21

DEVELOPER
Ubisoft RedLynx

PUBLISHER
Ubisoft

REVIEWED ON
AMD FX4130, GTX 1060, 8GB RAM, Windows 10

MULTIPLAYER
Eight player online, four player local

LINK
www.ubisoft.com/en-gb/game/trials-rising/

showing, although its biggest flaw is in arriving after the player has already completed a couple of introductory levels that explain the core mechanics perfectly.

The learning curve rarely feels too steep, either. Minus one stop on my first trip to Europe, the campaign provides just enough challenge that progress always felt within reach.

HIT THE BRAKES

The downtime between levels isn't exactly smooth, unfortunately. A flashy, modern UI spends too much time counting rewards, experience and currencies after a track's completion. The world map is a neat way of contextualising stages but often obscures the next step in your career. Games like *Trials* thrive on that 'just one more go' attitude, but *Rising* struggles to keep momentum.

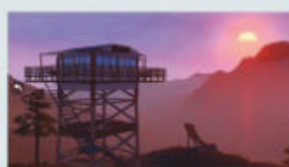
It only gets worse in the main menu, which is awash with icons and submenus that just needed a cleaner way to show me what I want. I also found gamepad controls to be inconsistent in menus.

Trials Rising has cosmetic microtransactions, but its loot boxes offer the most underwhelming prizes around. I'm a sucker for character dress-up, but with so many sticker shapes and sizes flooding the reward pool, I can't see myself ever shilling out. *Rising* also commits the unforgivable sin of duplicate loot. Sure, you can sticker and colour up different versions of the same polo tee, but more often than not it's going to the recycling bin for a measly handful of coins.

For me, these are tiny inconveniences, not game-breakers. *Trials* is still the same addictive puzzle-box I remember from those childish flash gaming days. ■

IF YOU BUILD IT...

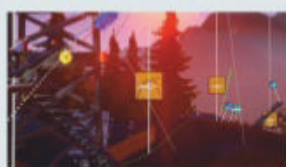
Getting to grips with Trials Rising's track editor



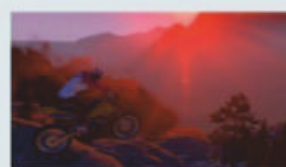
1 SET THE STAGE
First, pick a location and twiddle with the lighting. We're going for a little bit of a *Firewatch* vibe if you can't tell.



2 CARVE A PATH
A track's not a track without, well, a track. Place nodes to lay the groundwork for some sick stunts.



3 BRICK BY BRICK
There are over 8,000 objects from both *Rising* and past *Trials* games, so let's start building out our masterpiece.

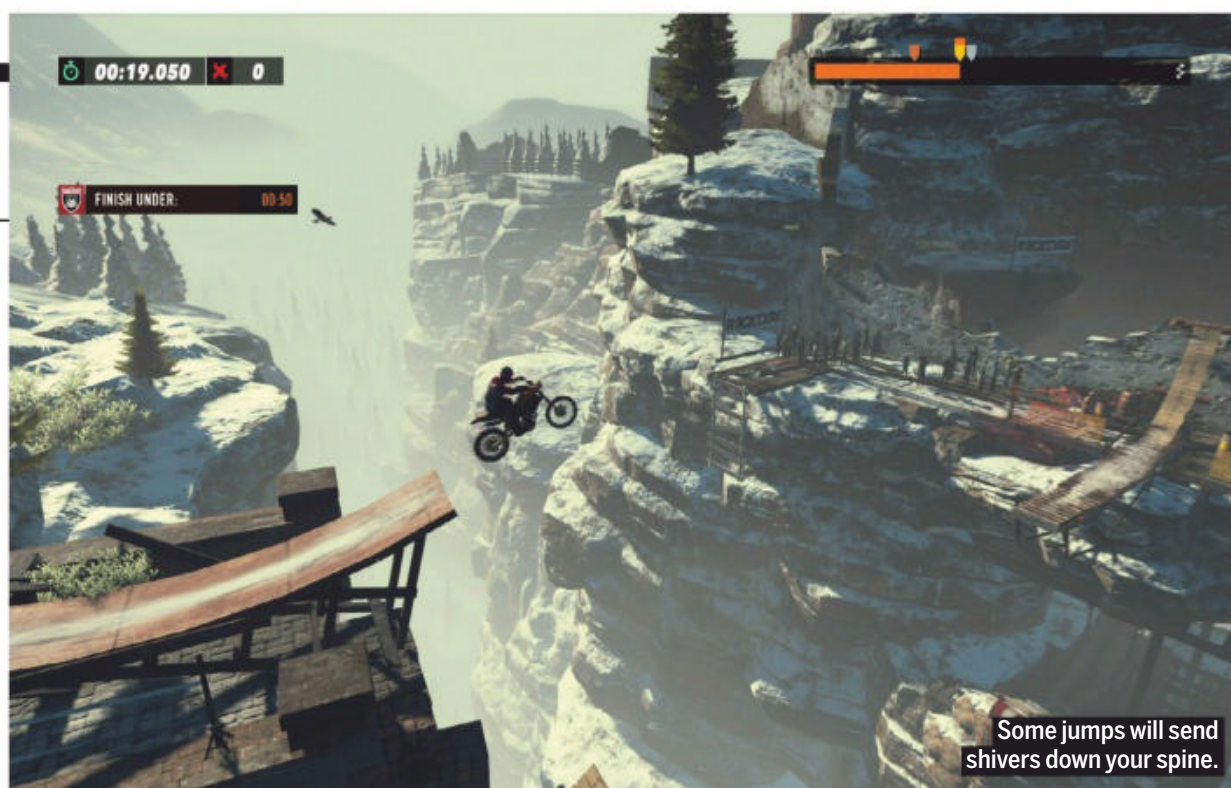


4 PERFECT FINISH
Henry would be proud. Let's give it a test run and pop it on the web, and give others a chance to try it out.

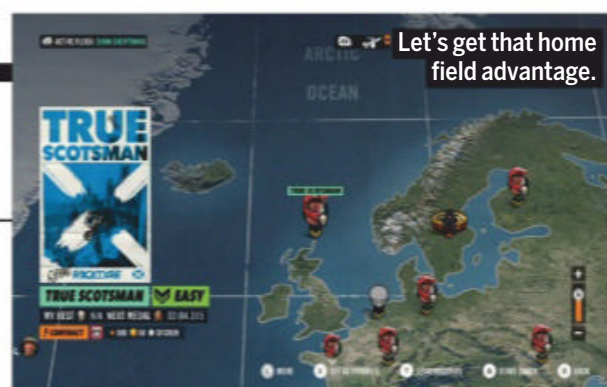
PC GAMER VERDICT

Modern inconveniences can't get in the way of what has to be the tightest *Trials* game yet.

85



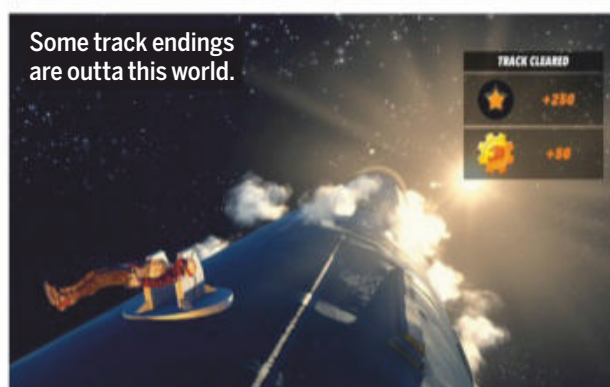
Some jumps will send shivers down your spine.



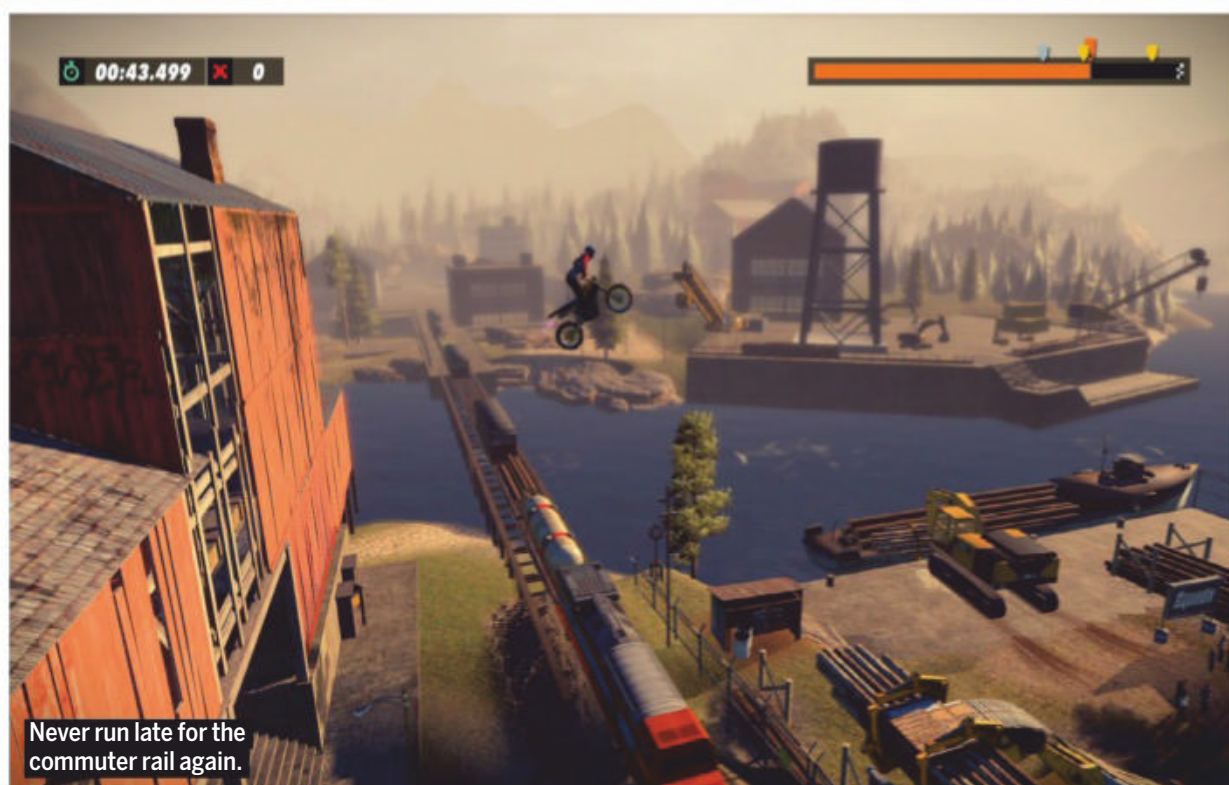
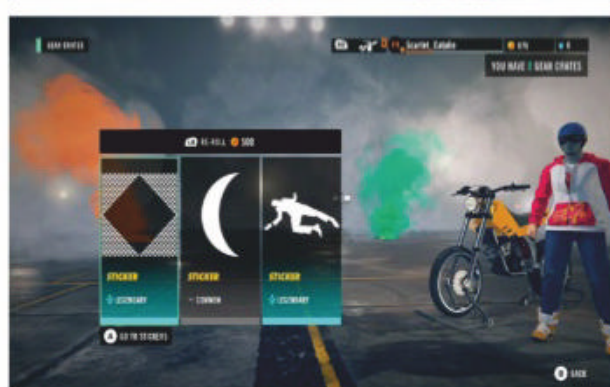
Let's get that home field advantage.



Each league ends with a tense head-to-head.



Some track endings are outta this world.



Never run late for the commuter rail again.

MODEM LOVERS

Police the internet of the past in
HYPNOSPACE OUTLAW. By Andy Kelly

Once upon a time the internet was something you *went on* rather than something that was *always there*. It was a thing you'd occasionally enjoy, usually in the evenings when it was cheaper; not a fibre optic thread running through every facet of your existence. And *Hypnospace Outlaw*, a cyber-detective adventure set within a fictional computer operating system, is a nostalgic return to this Old Internet.

In the game's alternate 1999, people climb into bed at night, snap on a high-tech headband, and drift into Hypnospace. This garish low-res internet, inspired by the digital shanty towns of GeoCities, is fully realised. There are hundreds of pages to click around, split into zones that reflect the personalities of their eccentric creators. In Teentopia you'll find edgy teenagers, nu metal, and drama. In Open Eyed, new age spiritualists and conspiracy theorists. It's a brilliantly observed snapshot of the primordial web.

You are an Enforcer hired by the creator of Hypnospace, Merchantsoft, to locate and destroy objectionable content. This could be copyright infringement, harassment, or malicious software. And when you find something that breaks the rules you click on the gavel at the top of your browser, then on the offending article, and watch as it's scrubbed from the internet. In return you

receive a bounty of HypnoCoins – a currency used to buy software, desktop wallpapers, virtual pets, screensavers, and other frippery to personalise your OS.

But it becomes clear after a few cases that you are not a force for good, and have been weaponised by Merchantsoft to ruthlessly censor and control the web. An early case sees you removing cute kids' drawings from a teacher's website

because they contain a copyrighted image of a cartoon character. Bringing the gavel down on these harmless doodles was genuinely difficult, and the sound of HypnoCoins tinkling into my virtual wallet, my 30 pieces of silver, only made me feel worse.

Later cases are much more involved, and *Hypnospace Outlaw* reveals itself to be a surprisingly challenging puzzle game. Tasks include busting an illegal file-sharing ring and infiltrating a hacker

It's a brilliantly
observed
snapshot
of the
primordial web

NEED TO KNOW

WHAT IS IT?
A nostalgic internet adventure

EXPECT TO PAY
£15

DEVELOPER
Tendershoot

PUBLISHER
No More Robots

REVIEWED ON
GTX 1080, Intel i5-6600K, 16GB RAM

MULTIPLAYER
None

LINK
hypnospace.net

collective, and doing so requires some genuine detective work. You use a search engine to trawl the web for unlisted pages, secret communities, and passwords, and I had to have a notebook on hand to keep track of important names and keywords. When I cracked a case using my own imagination and ingenuity, it felt massively rewarding because I knew I'd done all the legwork myself. Even so, the guilt of working for The Man is hard to shake.

COMPUTER LOVE

The HypnOS interface holds everything together well, being a fully functional operating system in its own right. You can drag icons around the desktop, download and open documents, listen to audio files in a WinAmp-style media player, and even change your screensaver. It's also possible to contract viruses.

It all feels nicely clicky and tactile, although it can get a little confusing when you have a lot of windows open simultaneously. I also found the slow loading times, as authentic as they are, a little frustrating when trying to navigate quickly between pages. You can waggle the mouse cursor to make the page furniture pop in more quickly, which is a cute idea, but the novelty wore off pretty quickly.

Those criticisms aside, *Hypnospace Outlaw* is, rather unexpectedly, one of the best detective games on PC. Its puzzles are layered and complex, but never unfair. It respects you enough to let you figure things out at your own pace, and with almost no hand-holding. But if you do hit a wall there's a well-designed hint system. Its internet is a joyous explosion of art, music, creativity, and weirdness, and a pleasure to explore. ■

PC GAMER VERDICT

A satisfying detective adventure based around a weird and wonderfully imaginative retro internet.

81

Disclaimer: PC Gamer columnist Xavier Nelson Jr. is a writer on Hypnospace Outlaw.

ZONED OUT Places to call home in Hypnospace



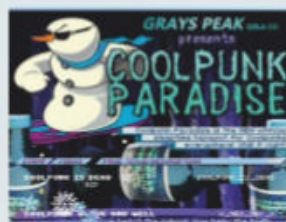
OPEN EYED
A zone for all the truth seekers. UFOs, conspiracy theories, new age weirdness, and a generous helping of paranoia.



GOODTIME VALLEY
Do you miss the good old days, when everything was fields and you could leave your doors unlocked? Welcome home.

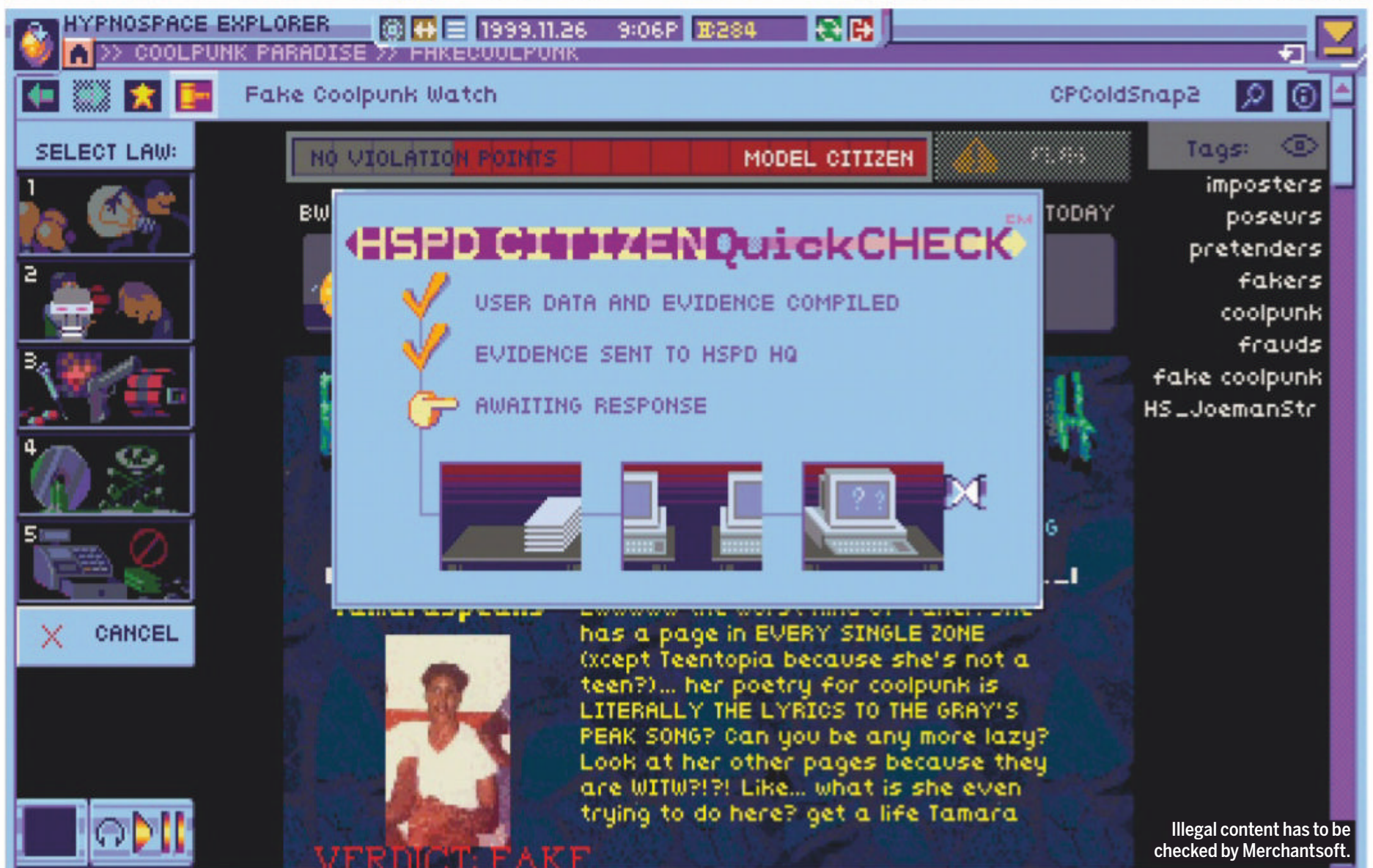


TEENTOPIA
A hangout for sulky teens. If you're into emo music and unnecessary drama, this is the Hypnospace zone for you.

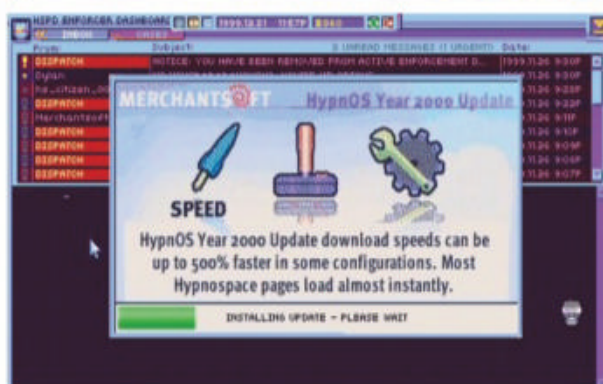


COOLPUNK PARADISE
A trendy subculture that may or may not have been manufactured by a soda company.

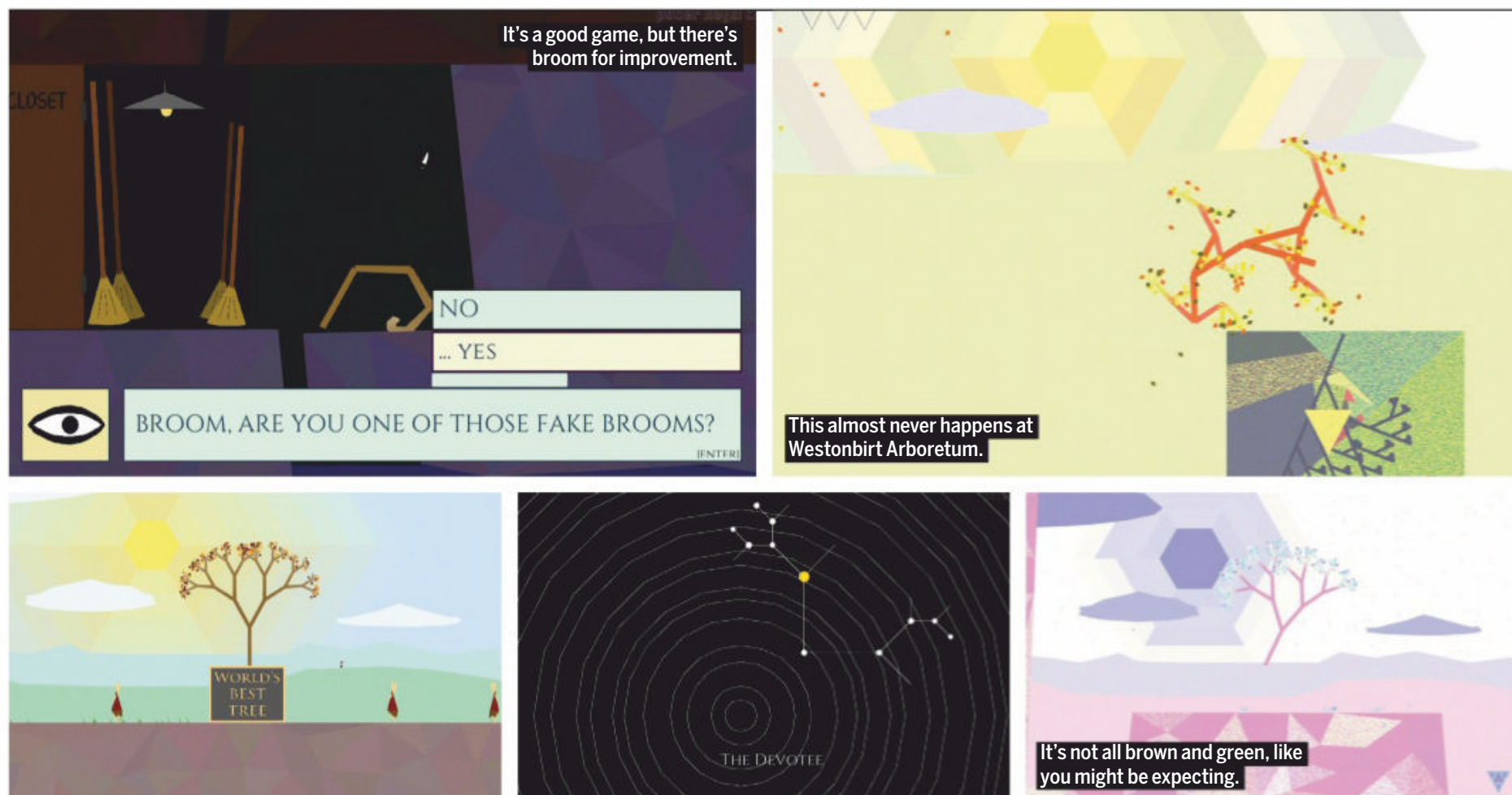
A messy desktop can get out of control.



Illegal content has to be checked by Merchantsoft.



How to Be a Tree



BEYOND BE-LEAF

Going back to your roots in the surprising **HOW TO BE A TREE**. By Tom Sykes

What's it like being a tree? Being stuck in one spot for a few hundred years while humans come and go around you and generations of doomed couples scratch their initials (oww) right on your ruddy bark. I've made it sound pretty terrible, haven't I, but after slipping on my tree suit for the surprisingly comprehensive *How to Be a Tree*, I've come to the conclusion that being a tree is kind of wonderful.

For one thing, you're such a lovely tree that a monument is quickly built in your honour. You go on to become an icon of worship for a futuristic society, before the game ends, and without you lifting a finger.

You'll be pleased to discover that's just one ending of many, branching out from the innocuous beginning, where you're given ownership of a seemingly immobile totem of twigs. The other endings stem from your realisation that this tree can actually *move*, tumbling left and right, and jumping up onto floating platforms with all the elegance of the guy from *QWOP* after a litre of gin.

Nominally this is a platform game, where you're required to leap about, to collect triangular doodads, and reach the swirly exit portal that will take you to the next level. But it's

also, very much like *The Stanley Parable*, a game of hunting down and unlocking multiple endings.

Without wanting to spoil any of them, I do need to point out just how thoroughly developer Jimmy

Andrews has considered the tree experience, from the objects they're most commonly turned into, to the little matter of the roots inconveniently tying them to the ground.

Each of the endings takes you down one of these paths, exploring, for example, a tree's immovable nature, the game taking that aspect and pushing it to a ludicrous extreme.

BARKING UP THE WRONG...

There are some strange, some cute, and mostly a lot of funny scenes on the way to each ending – it's just a

NEED TO KNOW

WHAT IS IT?

A completely straightforward tree simulator, wink wink

EXPECT TO PAY

Free

DEVELOPER

Jimmy 'Zaphos' Andrews

PUBLISHER

Jimmy 'Zaphos' Andrews

REVIEWED ON

AMD A4-6300@3.7GHz, 6GB RAM, GeForce GT 610

MULTIPLAYER

None

LINK

bit.ly/HowTree

shame that the controls so often get in the way. Rather than moving a single character, you're encouraging a physicsy pile of branches around here, and that's exactly as annoying as it sounds. It's not so bad rolling left and right, but to jump you first have to contract into a straight line, using the recoil to spring yourself upwards.

You'll need to have a tolerance, then, even an aptitude for physics comedy games like *QWOP* or *Getting Over It* to get the most out of *How to Be a Tree*, even if its difficulty pales in comparison with those distinctly Sisyphean nightmares.

However it's still possible to experience much of this creative, funny and inspired narrative platformer, as there are several endings that don't require total mastery of its unforgiving controls. Root around for those, give yourself a chuckle, then maybe attempt the more challenging endings – should you succeed, you'll certainly be rewarded for your efforts. ■

PC GAMER

VERDICT

Make like a tree and leave time to enjoy this sidescroller, which is worth playing even if you hate infuriating games.

74

GHOST ADVENTURES

Haunting Tokyo in **BIRD OF PASSAGE**. *By Tom Sykes*

Bird of Passage gives you the opportunity to don the white sheet and clanking chains of a g-g-ghost, but without having to die for the privilege. You're a spectre that's been haunting the streets of Tokyo since 1923, when the Great Kanto earthquake ripped Tokyo asunder, and sent you to an early grave. Rather than take up residence in a creepy old mansion, you instead take to the roads, hopping endlessly from one taxi to another, sharing your story – or the bits you can remember of it, at least – over and over again.

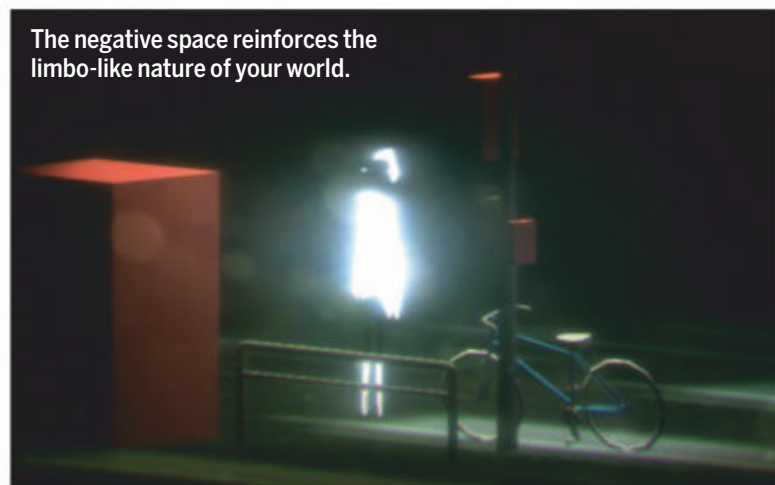
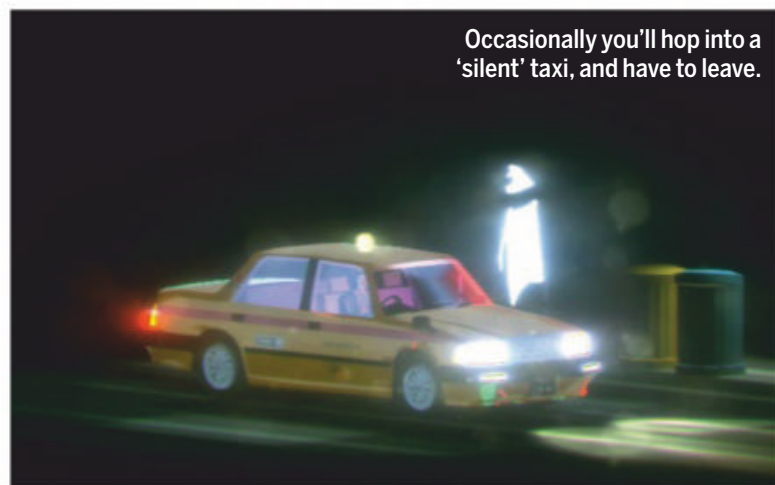
Initially, the game takes place in an endless loop. Your ghost chap hops into a taxi, tells his life story to the driver (via a branching dialogue system), and then jumps out, ready to do the same thing with another unsuspecting cabbie. And so on, and

so on, until you figure out how to break the cycle, and free yourself.

As loops go, it's one of the most mesmerising I've come across, thanks to the expertly framed scenes, the graceful animation of the ghost protagonist, and the overall smoothness of action as you enter and exit each taxi, time and again. It was only when I noticed the repeating dialogue that I was finally snapped out of this dreamlike reverie.

I thought then that *Bird of Passage* might be intentionally endless, but there is an ending lurking behind the 'correct' set of dialogue options – and no clue whatsoever what those correct choices might be. That mirrors the experience of the ghost, who has no idea how to move on either, but it is ultimately quite frustrating having to replay the same conversations until you finally 'win' them. ■

66



NEED TO KNOW

DEVELOPER
SpaceBackyard

PUBLISHER
In-house

LINK
spacebackyard.itch.io

KNIGHT'S WATCH

War is hell in **A KNIGHT'S FEE**. *By Tom Sykes*

A Knight's Fee starts with a premise that's still surprisingly rare in games – that actually being involved in a battle would be *terrible*. This short but effective medieval battle sim isn't your average heroic power fantasy, where you can swing a sword with abandon and chug a potion to instantly heal yourself – you're an ordinary knight, with an ordinarily frail body, and you're lost in a fog of cannon fire and enemies.

You begin the game in formation, lined up with your fellow combatants who will soon be on the receiving end of a giant whompy thing that lands like a meteorite. You wake up some time later with shouting and screaming all around you and the alarming whinnying of a horse galloping in your direction.

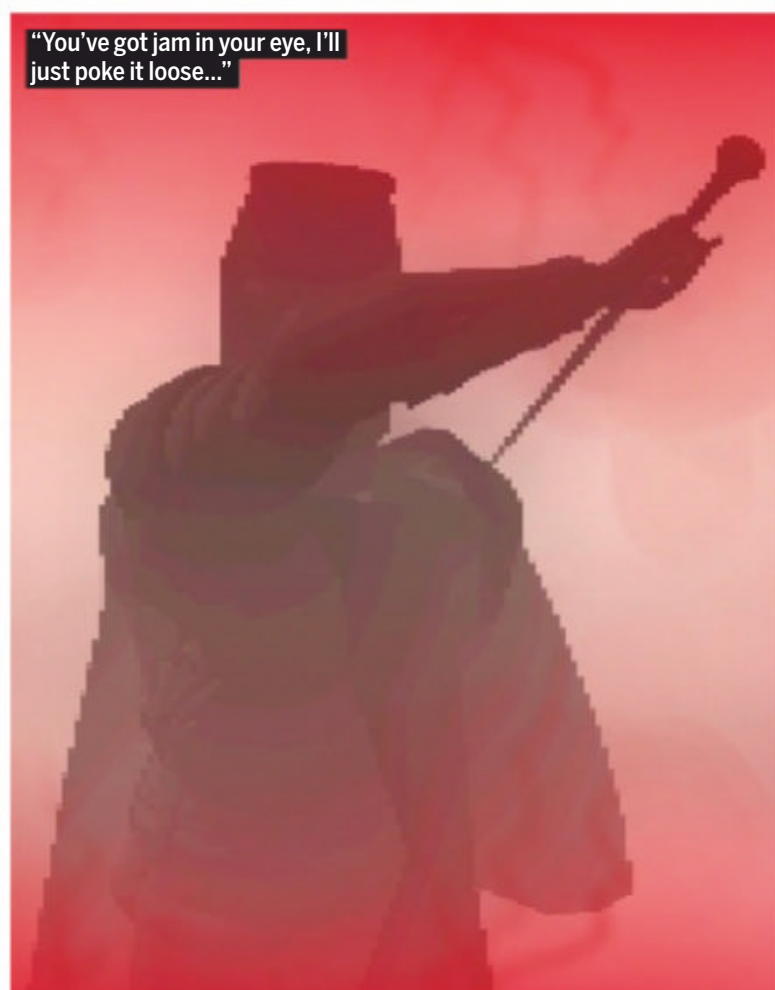
Survive that encounter (don't worry, there will be more of them)

and you have even bigger problems: the seemingly random crash of cannon fire, and the sudden arrival of enemy infantry through the fog of war. Combat is simple in *A Knight's Fee* – perhaps a bit too simple, as enemies perish in a single hit from your blade. Likewise, every enemy thwack can be diverted by holding your shield up to your face, even attacks coming from behind you.

It does the job however, while the generous shield mechanic makes it slightly easier to last long enough to see the end.

There is an end to this nightmarish battle, but until that point you're going to be dying and restarting until you brute-force your way to success. Not that 'success' is an appropriate term – this atmospheric and unheroic battle sim is a game you endure, from the edge of your seat. ■

70



NEED TO KNOW

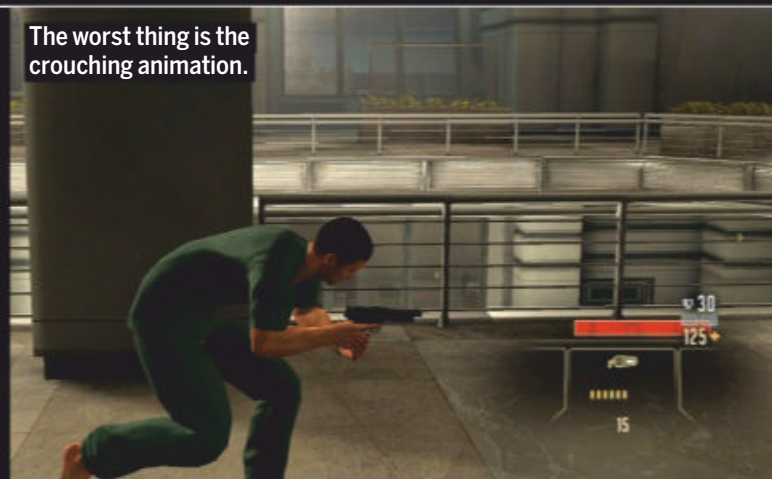
DEVELOPER
Andos

PUBLISHER
In-house

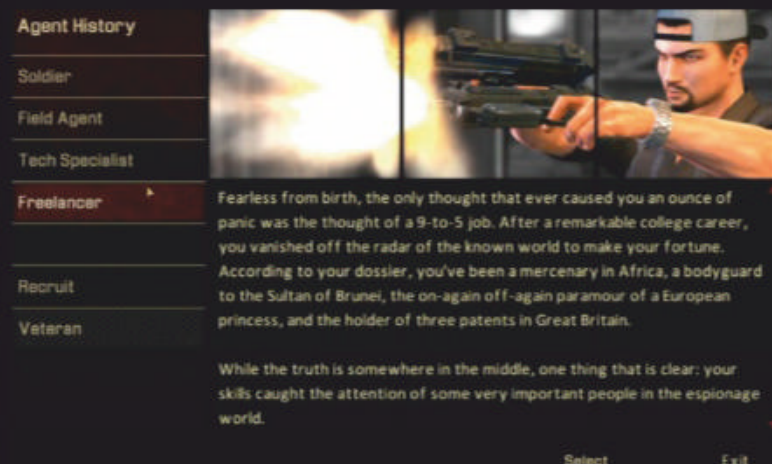
LINK
andos.itch.io



Forget krav maga, this is pure '60s movie kung fu.



The worst thing is the crouching animation.



COVERT INACTION

ALPHA PROTOCOL plays like a B movie

It's usually difficult to enjoy a poor game in the way it's possible to enjoy a poor film. *Alpha Protocol*, however, is as close as it gets. You know it's bad, I know it's bad, Obsidian probably knows it's bad, and yet despite this, everyone with a soul deserves to play it at least once. It's gaming's Plan 9 From Outer Space; The Room with elbows to the throat.

I realise I'm going to love it the moment I hear the doddering espionage soundtrack in the menu. It's the music that would play as you took the lift to James Bond's luxury shag-pad. Everything about this suggests the game takes itself completely seriously, and that just makes me more excited.

This earnestness continues on the Agent Select screen, which reads like it was drafted by Garth Marengi's ghostwriter. I go with a 'freelancer' – partly because that's what I am in real life, and partly because it describes me as 'fearless from birth', as if I commando rolled out of the womb with a Walther PPK inexplicably concealed on my infant body. I haven't fired a single round yet, and I'm already in love with *Alpha Protocol*.

I decide my guy will be an expert at martial arts and stealth to the

exclusion of everything else. I can't fire a gun, but by God I can punch. I am Mike Fists: the chop in the shadows, the chokehold in the dark.

Mike Fists wakes up sedated in a mysterious lab, wearing scrubs that have a QR code on them ('scan this to get 20 per cent off your next exploding watch'). As discussed, I'm terrible at shooting, so I decide to batter everyone instead. It feels great when it works, but a few times I fall short and end up flailing in front of my

enemy, doing spin-kicks in the air like I'm trying to impress my school crush after one karate lesson.

I adore the minigames. Hacking, lock picking, and deactivating alarms are satisfying distractions that are almost certainly nothing like the real thing. It reminds me of *Sid Meier's Covert Action*. When it goes well, I feel super effective, even after I press

I am Mike Fists: the chop in the shadows, the chokehold in the dark

NEED TO KNOW

WHAT IS IT?
Unintentionally hilarious espionage action

EXPECT TO PAY
£10

DEVELOPER
Obsidian Entertainment

PUBLISHER
SEGA

REVIEWED ON
Intel Core i7-7700 CUP
@ 3.60GHz, 16 GB RAM,
NVIDIA GeForce GTX
1070, Windows 10

MULTIPLAYER
No
LINK
<https://bit.ly/2yAfTHS>

the wrong button and realise I can deactivate alarms by shooting instead of hacking them. I also love that the opening takes place somewhere called 'The Greybox', which is what I would have called my secret lair when I was seven. The Shushplace. The Shadowyurt. Incognitovault.

JOHNNY ENGLISH

Things get real when I leave The Greybox and head to Saudi Arabia. It's going rather well until I zipline right past a security camera – which, to be fair, the game did warn me about. It's a mistake that gives me the pleasing image of some beleaguered security guard hitting the alarm after a klungo superspy goes zooming across his monitor.

And that pretty much sums up everything I love about this dumb, brilliant game – accidental slapstick moments in a world that's grimly serious, like finding a pop-up inflatable snake in the urn of a cremated lover. ■

PC GAMER VERDICT

It's like if Bioware made an Austin Powers game but didn't realise it was meant to be a joke. I can't recommend it enough.

65

SWITCH CRAFT

STORIES UNTOLD celebrates everything analogue

Like *Alpha Protocol*, *Stories Untold* is the sort of game where I've made up my mind about it during the opening credits. This time, though, it's fabulous news. Floating keyboards, brown wallpaper, and music that whispers, 'remember when you were young? Things were less frightening then'. It's brilliant.

Each section in *Stories Untold* is essentially a different game. It's the first one, *The House Abandon*, that makes me properly engage with the setting and presentation. It's a neat little story. You'll see the twist coming but enjoy the creepy journey there. It's an hit of nostalgia for anyone who ever loaded games from a tape.

When I first played *Stories Untold*, I was slightly disappointed that all the games weren't different takes on the text adventure, but now it makes perfect sense. It's a tactile love letter

to knobs, keyboards, dials and other analogue inputs. It's perfect for anyone who, like me, feels a rush of excitement when they realise an in-game toilet is flushable. It's also one of those games that forces you to think outside the constraints of what you see on screen, which is massively refreshing. At one point, I had to find a real-life pen and paper to solve a Morse code puzzle. And once you realise that the game is going to approach everything in such an oblique way, it feels oddly liberating.

I'm less keen on the first-person bit in the third chapter, *The Station Process*, but that's only because I'd grown accustomed to the comfort of sitting and staring all those buttons, and doodads. It's the same feeling as having to go to the shops after a whole day spent playing games. Lord, let me stay inside and twiddle *Stories Untold's* dials forever. ■

85



NEED TO KNOW

EXPECT TO PAY
£7

DEVELOPER
NoCode

PUBLISHER
Devolver Digital



George Stobart: gaming's most seductive patent lawyer.

BROKEN SWORD 3

Broken *Sword 3* is here almost by means of an apology – I'm sorry for not loving you more back in 2003. You were nowhere near as bad as I thought. It's a thoughtful, heartfelt 3D modernisation of point-and-click games that works surprisingly well – classic adventure puzzles blended with George and Nico's newfound ability to climb almost everything.

It's endearingly daft – it starts with a patent lawyer crashing his plane and a journalist clambering across balconies to get her story, but the two leads have enough charm to carry it off. It's like a BBC radio play of the *Uncharted* games, which is absolutely one of the highest compliments it's possible for me to pay. ■

78



Grandpa found new ways to make hide-and-seek exciting.

RUSTY LAKE ROOTS

I know it's naughty to start a review with an anecdote, but I just found a fat dead old man wedged in my clock and I need to tell someone. Also, it let me click on his nipples.

Rusty Lake Roots is the *Inside No 9* of adventure games – a sinister, hand-drawn nightmare that feels like being trapped inside grandma's scariest painting. But it's also an enjoyable adventure game, with calm, meandering puzzles that almost make you feel guilty for figuring them out so quickly.

Did you *really* just decide to write a love letter to your future wife using her nosebleed juice? Yes, you did, you pervert, and so did I. Points knocked off because I can't play fullscreen. ■

81



It's not Indiana Jones without a selection of exotic pots.

INDIANA JONES AND THE FATE OF ATLANTIS

This was made in 1992, so it's okay to expect disappointment, right? Nope. I'm a fool. It's still brilliant. From the glorious, farty music to the opening credits which have Indy tumbling through his university loft in search of a lost statue, this is perfectly pitched. It's witty, reverential, and wonderfully animated. Solving puzzles with the SCUMM engine feels fiddly now, but some elements remain impressive. ■

90

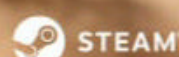
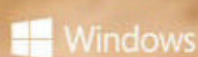
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HARDWARE

GET THE PC YOUR GAMES DESERVE



Without a motherboard, your PC is just a box full of loose junk rattling around.

GROUP TEST

MOTHERBOARDS

These are the best gaming motherboards to help you start your gaming build right.

By James Norris

At the heart of your PC sits the most neglected component in computing – the lonely motherboard. The best gaming motherboards provide much more than just a physical place to plug in all the parts – the chipsets they are built around govern the speed of the sockets and slots for each piece of added hardware along with determining crucial features like overclocking ability, port count, SSD support, DDR compatibility, networking capability and high-end graphics card performance. Add in the inherent style differences between models and you have a component that affects every aspect of your gaming PC build, so it pays to pick carefully.

If you're looking for tweet-length general guidance the TL;DR is that a Z390-based motherboard with Intel's newest Coffee Lake CPU in the saddle is still the fastest horse in town. Looking to create a budget PC build? Go with AMD's Ryzen 2nd Gen processor paired with an X470 mainboard.

Starting to sound complicated? Don't worry, we've got your back. Here you'll find our latest picks for every gaming motherboard style and price point, from ITX to mighty X299 megabboards, all tested and PC Gamer approved.



HOW WE TEST

The motherboards recommended in this guide all received extensive research and evaluation, including enclosure installation, performance benchmarking, stability testing, and a follow-up period of real-world break-in usage that focuses on gaming, entertainment, and media software.

When possible, all tests are performed with the same components installed to remove any variables except the motherboard itself. We also research the entire field of Z370, X470, X299, and older motherboards and narrow the list down to the best, most competitive boards.

Benchmarks include AIDA 64 Extreme, PCMark 8/10, Cinebench 15, CrystalDiskMark, 3DMark FireStrike, DPC Latency Checker, and others. The real-world break-in period encompasses office and creative work, media streaming, and gaming with a variety of demanding titles like GTAV, Total War: Warhammer II, DiRT Rally, Rise of the Tomb Raider, Far Cry 5, Hitman, and others.

Gaming tests are run at 1080p at medium to high settings to remove any bottlenecks caused by graphics card performance. When relevant, both single- and dual-graphics card configurations are tested to ensure motherboard stability in SLI and Crossfire situations.



X470 Aorus Gaming 5 Wi-Fi

GIGABYTE £174

1 There are more expensive X470 motherboards out there, including the excellent Asus ROG Crosshair VII, but forking over the extra cash for higher-end hardware won't necessarily provide a better building or gaming experience than Gigabyte's X470 Aorus Gaming 5 Wi-Fi. This board serves up a full plate of features along with a side of RGB style, all for around £75 less than comparable hardware.

Ryzen CPUs aren't overclock-happy, particularly the X-models, but the X470 Aorus Gaming 5's 8+3 phase VRM reliably allows chips like the 2700X to run all cores at full boost speeds

alongside 3200MHz memory modules. Dual BIOS, dual PCIe Gen3 x4 M.2 slots, and a healthy stack of both internal and external USB ports are plenty for most gaming builds. Combined with a top-tier audio codec and great networking hardware, the X470 Aorus Gaming 5 is my best overall pick for Ryzen 7 builds. If, however, you're looking for more advanced features and the ability to do serious overclocking, this one won't satisfy like the Crosshair VII.

PC GAMER VERDICT

- ➕ Speedy Intel Wi-Fi and Bluetooth
- ➖ Other boards overclock better and run faster memory
- ➖ Few advanced hardware options

SPECS CHIPSET: X470 / **MEMORY:** (4) DIMM, 64GB, DDR4-3200 / **PCIe SLOTS:** X16, X16 (X8), X16 (X4), (2) X1 / **VIDEO** PORTS: HDMI / **USB PORTS:** (10) REAR IO, (9) INTERNAL / **STORAGE:** (2) M.2, (6) SATA / **NETWORK:** ETHERNET, 1.73GBPS

Z390 Aorus Ultra

GIGABYTE £230

2 Gigabyte isn't as flashy as the other top tier motherboard makers, but it has managed to accumulate plenty of recommendations of late. Combined with a consistently lower cost, that makes Gigabyte's Z390 Aorus Ultra a bit of a winner. We've liked the Aorus branded motherboards starting with Skylake in 2016, and its Ryzen boards have been excellent all-around picks, but this is the best I've tested.

The Gigabyte Z390 Aorus Ultra competes with the MSI Z390 Gaming Pro Carbon AC and the Asus ROG Maximus XI Hero (Wi-Fi), with a better price and features. It has triple M.2 slots,

Intel Wi-Fi Wave2 and Ethernet, a full RGB treatment with multiple headers, and ALC1220 audio. You'd have to climb to the top of the product stack to get the same from MSI and ASUS, both of whom offer more polish but also charge plenty for the privilege. This is great value.

The only real downside for me is that this mobo is perhaps a bit too flashy, and may not suit more restrained gaming builds. It's a small criticism of an otherwise excellent board.

PC GAMER VERDICT

- ➕ No-compromise features including triple M.2 slots
- ➖ Intel CPU compatible
- ➖ Potentially too much bling

SPECS CHIPSET: Z390 / **MEMORY:** (4) DIMM, 64GB, DDR4-4266 / **PCIe SLOTS:** X16, X16 (X8), X16 (X4), (3) X1 / **VIDEO** PORTS: HDMI / **USB PORTS:** (10) REAR IO, (7) INTERNAL / **STORAGE:** (3) M.2, (6) SATA / **NETWORK:** ETHERNET, 1733MBPS



3

ROG Strix Z390-I Gaming

ASUS £200

3 With the price dropping and the previous Z370-based model starting to disappear from vendors, ASUS' Strix Z390-I Gaming moves into the top spot for the boutique ITX segment. Despite its diminutive size and paucity of upgrade options, the ROG Strix Z390-I Gaming provides excellent performance and value. Boasting stable 5GHz overlocks using several memory speeds, including 3600MHz with tweaking, its single PCIe x16 slot pushed top-shelf graphics cards to speeds that matched or exceeded most Z390 ATX boards during testing.

The smallest Strix has a lengthy features list, with no

shortcomings despite the tiny form factor, including dual PCIe Gen3 x4 M.2 slots, Intel v219 Ethernet, upgraded Intel 9560 2x2 802.11ac Wi-Fi, and an ALC1220A audio codec supported by isolated circuitry and headphone amps. Despite the dense set of features, the Strix Z390-I's clean design makes for quick system assembly and configuration, although the previous generation sported a less bulky design – an important consideration for ITX rig building.

PC GAMER VERDICT

- ➕ Dual M.2 slot
- ➖ One M.2 slot is under the motherboard
- ➖ New I/O port shield is bulky

SPECS CHIPSET: Z390 / **MEMORY:** (2) DIMM, 32GB, DDR4-4500 / **PCIe SLOTS:** (1) X16 / **VIDEO PORTS:** HDMI 2.0 / **USB PORTS:** (7) REAR IO, (1) FRONT IO, (4) INTERNAL / **STORAGE:** (2) M.2, (4) SATA / **NETWORK:** ETHERNET, 866MBPS 802.11AC

Aorus AX370 Gaming 5

GIGABYTE £114

4 Gigabyte's Aorus AX370 Gaming 5 got the nod early on for showing up on time and being stable from Ryzen's start, and it remains an impressive midrange AM4 effort. While others have largely caught up now, Gigabyte sorted out the platform ahead of the competition, delivering a motherboard that proves an easy partner during the build process and providing a slick experience comparable to assembling a Z170 or Z270 system.

Overclocking isn't a top priority for Aorus gaming motherboards, or Ryzen in general. The Ryzen 7 1700X used in testing could only manage around 4GHz, but at stock clocks

the 1700X's higher IPC and eight cores pull comfortably away from Intel's more expensive 6-core counterparts. If you're on a budget and don't mind using an older platform, the AX370 Gaming 5 is more than sufficient for most AM4 gaming builds.

It does lack some of the features, like WiFi and Bluetooth compatibility, so you should decide whether or not the saving you make on your mobo would be lost adding in connectivity with separate components.

PC GAMER VERDICT

- ➕ Stable BIOS and memory support
- ➕ 32 Gb/s M.2 and U.2 connectors
- ➖ No Wi-Fi or Bluetooth
- ➖ Single M.2 slot

SPECS CHIPSET: X370 / **MEMORY:** (4) DIMM, 64GB, DDR4-3200 / **PCIe SLOTS:** X16, X16 (X8), X16 (X4), (2) X1 / **VIDEO PORTS:** HDMI / **USB PORTS:** (10) REAR IO, (9) INTERNAL / **STORAGE:** (2) M.2, (6) SATA / **NETWORK:** ETHERNET, 1.73GBPS



4



5



6

TUF H370-Pro Gaming Wi-Fi ASUS £117

5 If you're in the market for a budget board that still offers excellent Wi-Fi, ASUS has you covered with the TUF H370 Pro Gaming Wi-Fi. It sports a bare-it-all retro look that back-to-basics rig builders will love, with a simple black and silver aesthetic and just a touch of RGB lighting. It looks sharp and supports almost any colour combination you toss at it. If you're looking for something that won't make your rig look like a disco, this is a good option.

Under the hood, the TUF Pro Gaming packs dual M.2 slots, 10Gbps Gen2 USB 3.1, Intel v219 Ethernet, and a robust 2x2 Intel 9560 802.11ac adaptor that supports MU-MIMO and 160MHz

channels, shaming the competition in a price segment where Wi-Fi is rarely found. Audio is less impressive, opting for the older ALC887 codec, but you can make up some of this deficit with a decent gaming headset. Overclocking and higher memory speeds aren't supported with the H370 chipset, but that doesn't hold the TUF Pro Gaming back in real testing. Put your money into a faster GPU if you care about gaming, and don't worry as much about the RAM speed.

PC GAMER VERDICT

- ➕ Great Wi-Fi implementation
- ➕ Excellent real-world performance
- ➖ Limited memory speeds
- ➖ Weak audio

SPECS CHIPSET: H370 / **MEMORY:** (4) DIMM, 64GB, DDR4-2666 / **PCI-E SLOTS:** X16, X16 (X4), (4) X1 / **VIDEO PORTS:** D-SUB, HDMI / **USB PORTS:** (7) REAR IO, (6) INTERNAL / **STORAGE:** (2) M.2, (6) SATA / **NETWORK:** ETHERNET, 1.73GBPS

X299 Gaming Pro Carbon AC MSI £309

6 What if you want more cores for serious work or streaming, plus dual graphics cards without CPU bottlenecks, and overclocking potential as a bonus? If that's what you're after, look to Intel's HEDT (High-End Desktop) X299 platform and the Core i9 processors. The MSI X299 Gaming Pro Carbon AC is a utility infielder that offers every feature you'd expect along with impressive performance and style at a reasonable price, a rarity for the HEDT platform.

Performance is strong, and a solid overclocking experience tops off at 4.6 GHz on a Core i9-7900X (a few ticks shy of the top boards). Memory support is

good, running quad-channel configurations at speeds up to 3600. Dual x4 M.2 slots and a U.2 connector deliver high-speed drive access, along with eight SATA 6Gbps ports for more traditional storage media.

Intel's v219 Ethernet and AC-8265 Wi-Fi handle networking with typical aplomb (with the latter in the third M.2 Key-E slot), and the rear panel offers four Gen1 USB 3.1 ports and a pair of Gen2 ports, including one with a Type-C connector.

PC GAMER VERDICT

- ➕ Reasonable HEDT price
- ➕ Great features and overclocking
- ➖ Not the fastest X299 board
- ➖ No exotic extras

SPECS CHIPSET: X299 / **MEMORY:** (8) DIMM, 128GB, DDR4-4000 / **PCI-E SLOTS:** (2) X16, X16 (X8), X16 (X4), (2) X1 / **USB PORTS:** (9) REAR IO, (9) INTERNAL / **STORAGE:** (2) M.2, (1) U.2, (1) M.2 KEY-E, (8) SATA / **NETWORK:** ETHERNET, 867MBPS

YOUR NEXT PC

BUYER'S GUIDE

Build the best PC for your budget



KEY

Budget build

PC gaming is for everyone. Pick the parts you want to build a new, well-rounded PC for a good price.

Mid-range build

You want to run every new game at 1080p 60fps. This recommended build will see you through.

Advanced build

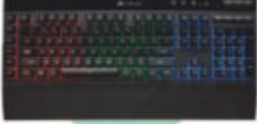
You're looking for the best PC on the market and superior components. But you still want to spend smart.

BUDGET BUILD

Enjoy 1080p gaming without breaking the bank



TOTAL
£1,046

MOTHERBOARD		B360M-DS3H Gigabyte £65 It lacks overclocking options, but the new B360 chipset is far cheaper than the Z370 and is perfect for this budget build.
PROCESSOR		Core i3-8100 Intel £109 A great processor for out-of-the-box gaming performance. Opt for the AMD Ryzen 1300X if you'd like to overclock.
GRAPHICS CARD		GeForce RTX 2060 Twin Fan Zotac £329 The 2060 is marginally pricier but noticeably better than our old 1060, making it the go-to budget GPU of the moment.
COOLER		Hyper 212 Evo CoolerMaster £30 Even a budget build can benefit from a good CPU cooler, letting you enjoy a quieter, cooler system.
MEMORY		Vengeance LPX 8GB (2x4GB) @2400MHz Corsair £50 DDR4 prices are still high, however this Corsair pair is a good value option.
POWER SUPPLY		CX-M Series CX550M Corsair £56 A UK price spike in our previous EVGA 500W pick opens the door for this quiet Corsair option.
SSD		MX500 250GB Crucial £37 Crucial's SSD range is fantastic value and offers good performance, too. A 250GB drive can hold your OS and essential programs.
HDD		WD Blue 1TB 7200RPM Western Digital £38 One terabyte of old-fashioned hard storage is the perfect home for all of your media, backups and storage-hungry games.
CASE		Neos Bitfenix £34 The Neos provides decent airflow, good support for 3.5-inch hard drives, and a fairly painless build experience.
DISPLAY		G2460PF AOC £190 This is the cheapest 144Hz gaming monitor you can buy, yet it still offers decent image quality, great performance and Freesync.
KEYBOARD		K55 Corsair £48 This keyboard may lack mechanical keyswitches but it offers decent typing, plus it has RGB and extra gaming keys.
MOUSE		Rival 110 SteelSeries £25 A great sensor, simple design and impressively low price make this a great entry-level gaming mouse.
HEADSET		Cloud Stinger HyperX £35 We love the HyperX Cloud, but at £70 it's too much for an entry-level system. The Cloud Stinger is the next best thing.

MID-RANGE BUILD

Our recommended build for playing the latest games



TOTAL
£1,635

MOTHERBOARD		Z370 Tomahawk MSI £155 This is a nice-looking bit of kit at a good price. Couple that with two M.2 slots, and it's the perfect place to house that Core i5.
PROCESSOR		Core i5-8600K Intel £256 Six cores, six threads, good out-of-the-box clock speeds – and it's overclockable. No performance bottlenecks with this installed.
GRAPHICS CARD		GeForce RTX 2060 Twin Fan Zotac £329 Serious power from the 'just about affordable' end of Nvidia's new GPU fleet, and it's ray tracing-ready too.
COOLER		Hydro Series H55 Quiet Edition Corsair £55 Tidy and quiet, the H55 will unlock our CPU's overclocking potential and look good through your case window while it does so.
MEMORY		Vengeance LPX 16GB (2x8GB) @2666 Corsair £98 16GB is the minimum amount of RAM we'd recommend for a system of this calibre.
POWER SUPPLY		RMx 650W Corsair £95 There's nothing like having a quality power supply. Get a decent cable kit for this one and you can easily spice up your rig.
SSD		MX500 250GB Crucial £37 This is still our SSD of choice. We've kept the capacity the same as our cheaper build, but upgrading to 500GB would be ideal.
HDD		WD Blue 1TB 7200RPM Western Digital £38 SSDs are great, but they're still far from cheap. This 1TB HDD will hold as many games as you will need.
CASE		Eclipse P400S TG Phanteks £75 The clean lines, intuitive build features and fantastic price cements the Eclipse as our mid-range case of choice.
DISPLAY		AGON AG251FZ AOC £290 Not only does this 1080p monitor have a lightning-fast 240Hz refresh rate but it produces decent image quality, too.
KEYBOARD		MasterKeys Pro L CoolerMaster £75 This is one of the cheapest mechanical keyboards, yet it looks and feels great. It only has single-colour backlighting, though.
MOUSE		AW958 Elite Alienware £62 Suitable for any grip thanks to its add-ons, and there's just something about those massive metallic buttons.
HEADSET		HyperX Cloud Kingston £70 Despite the budget price, we recommend this headset. There's simply nothing better for the money.

ADVANCED BUILD

Go above and beyond with a PC powerful enough to end worlds



TOTAL
£3,519

MOTHERBOARD



Strix X470-F Gaming

Asus **£147**

Get the most from the new AMD Ryzen 2700X with this matching X470 motherboard that's packed with features.

PROCESSOR



Ryzen 7 2700X

AMD **£282**

Easy to overclock and with huge performance out of the box, AMD's new flagship CPU is the one to go for.

GRAPHICS CARD

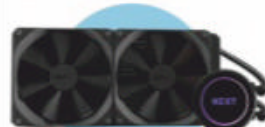


GeForce RTX 2080Ti Black Edition

EVGA **£1,073**

EVGA's custom design is considerably cheaper than Nvidia's reference card, and with great cooling.

COOLER



Kraken X62

NZXT **£143**

The Kraken is the culmination of three of our favourite things: an infinity mirror, a 280mm radiator and slick braided cooling.

MEMORY



Vengeance LED RGB 32GB @3200

Corsair **£259**

Ryzen is the one processor that does benefit hugely from higher-frequency memory. This kit is perfect for any would-be video expert.

POWER SUPPLY



HX750i 80 Plus Platinum

Corsair **£138**

Modular, custom cable kits, and a platinum efficiency rating. What's not to love about this Corsair PSU? Nothing, that's what.

SSD



970 Evo 500GB M.2 PCIe SSD

Samsung **£119**

Samsung's newest NVMe SSDs push performance to new heights and cost the same as the previous 960 range.

HDD



WD Blue 4TB

Western Digital **£99**

With a large boot SSD, there's little need for a large, cheap SSD. Instead we've opted for a huge 4TB hard drive for all your bulk data.

CASE



Enthoo Evolv ATX TG

Phanteks **£135**

The 5mm thick aluminium panels resonate with svelte professionalism, and the interior makes building inside this a dream.

DISPLAY



XB271HU

Acer **£640**

Our previous choice, the AOC AG271QG, has shot up in price. This Acer is now the best value 165Hz IPS gaming display.

KEYBOARD



K70 LUX RGB

Corsair **£115**

Even when money is no object it's hard to argue against Corsair's latest K70. A no-fuss, solid piece of aluminium craftsmanship.

MOUSE



Mamba Elite

Razer **£90**

A beautiful design, comfortable shape and outstanding performance make this a brilliant high-end gaming mouse.

HEADSET



ATH-AG1X

Audio-technica **£279**

What's life without a nice set of cans? The ATH-AG1X set is the pinnacle of headphones, and it's super comfy to boot.

EXTRA+LIFE

CONTINUED ADVENTURES IN GAMING

It's almost easy to forget Fortuna is forced-labour camp. Almost.



“Welcome to Fortuna 69, the hottest and weirdest night club in Warframe”

Exploring the **WARFRAME** joke that players won't let die

I like a good 69 joke as much as the next person, but for nearly four months *Warframe's* community has been keeping their own dumb 69 joke going and now it's taken on a magical life of its own that even *Warframe's* developers have had to acknowledge. Welcome to Fortuna 69, the hottest and weirdest night club in *Warframe*.

When *Warframe's* Fortuna expansion launched on November 8, 2018, players flooded into the titular underground city to meet new characters and take on a new quest before heading out into the frozen Venus wasteland. Though *Warframe* shares a lot of DNA with traditional

STEVEN MESSNER



THIS MONTH
Had a nice day.

ALSO PLAYED
Anthem

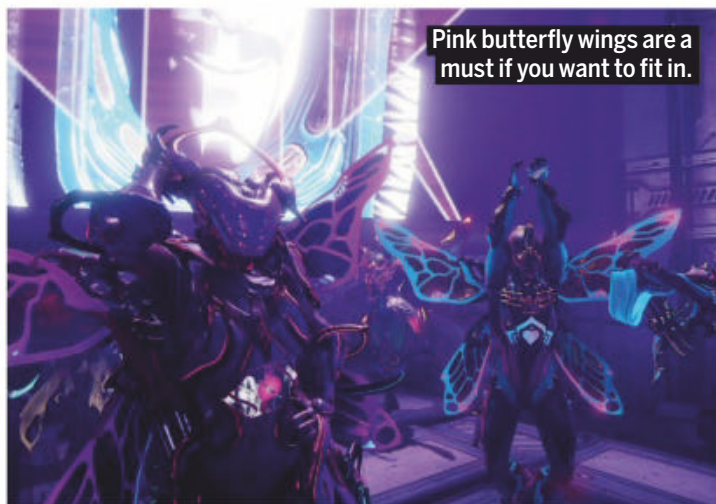
MMOs like *World of Warcraft*, everything is on a much smaller scale. When thousands of players flock to social hubs like Fortuna, they're first required to choose a numbered instance of it to help spread everyone out. During Fortuna's launch it was common to see instances of the city reach as high as 180.

But long after the buzz around Fortuna died and players migrated to other areas, one instance of Fortuna

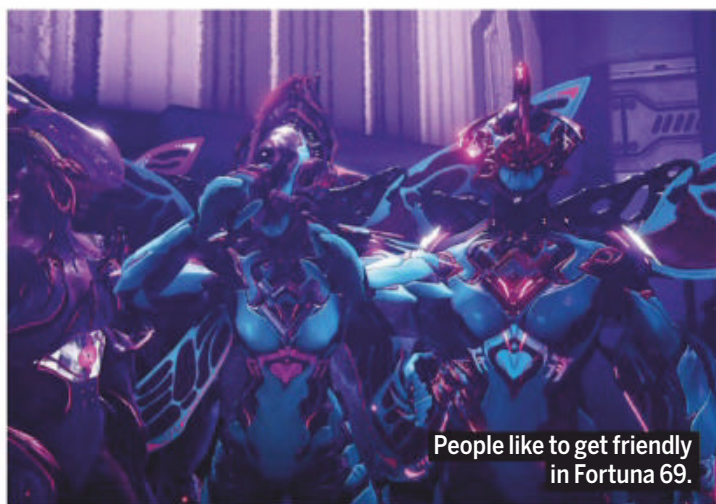
stayed open: Fortuna 69. Players refused to log out of it, and as long as one player stuck around to keep the lights on, others could select Fortuna 69 from the list of instances and join the liveliest, funniest place to chill out in all of *Warframe*.

Logging in, I find a small smattering of players running about their business taking on quests or buying items from the NPC vendors. But near the main quest giver is a small stage packed with players sporting neon pink outfits and

THE BIGGEST THREAT TO FORTUNA 69'S FATE IS UPDATES AND HOTFIXES



Pink butterfly wings are a must if you want to fit in.



People like to get friendly in Fortuna 69.

cosmetic butterfly wings.

For the most part, Fortuna 69 is kept alive by people who leave the game running when they're not at their computer. These AFKers, I'm told, are the real heroes who ensure the instance stays alive as traffic naturally waxes and wanes throughout the day.

The biggest threat to Fortuna 69's fate is mandatory updates and hotfixes that require players to log out and download an update. To help keep Fortuna 69 alive, developer Digital Extremes made sure to give instructions on how players could coordinate to keep the instance going. Essentially, some players will log out and download the update while others stay in Fortuna 69. Once the first batch has updated, they'll log back into Fortuna 69 to allow the second batch to update.

COMING TOGETHER

In the four months since its creation, the community has coordinated this handoff through dozens of hotfixes and updates, but there's no central organisation that manages it all and Digital Extremes has said they won't intervene to save it should everyone leave Fortuna 69 at once.

Like a lot of the insular memes one finds in various gaming communities, it's mostly in good fun and absurd just for the sake of being absurd. But I love that Fortuna 69 has become its own institution. ■



My tiger beetle's eyes are MUCH bigger than its tummy.

“Eating it face first was a real triumph”

The mind boggling ambition of **DRUNK ON NECTAR**

PHILIPPA WARR



THIS MONTH
Lived several lifetimes as a kinky butterfly

ALSO PLAYED
Don't Open the Doors!

Sometimes my ambition for the day is to have a piece of hot buttered toast. Then I remember *Drunk on Nectar*, a game which “aspires to become the most comprehensive nature experience ever made” and try to lift my ambitions slightly. Hot buttered toast with Marmite, for example.

Developer Venugopalan Sreedrahan posts updates for *Drunk on Nectar* announcing features like the ability to mate and reproduce as a monarch butterfly or changes to jumping spider transit. Meanwhile, last night a badger ran at me and I tweeted about it. I've decided that if I can't be the sort of person who sets out to replicate the glory of nature, then I can at least be the sort of person who plays it while eating toast.

Currently I am a Japanese tiger beetle. They're those leggy ground beetles with wing casings the colours of oil spilled in a puddle. I spent the first day not sure how to catch and eat my prey so I ended up nearly dying of exhaustion and starvation.

The second day is when I realised how to work the eating minigame. Grabbing a blue mud wasp out of the air and eating it face first was a real triumph.

A BUG'S STRIFE

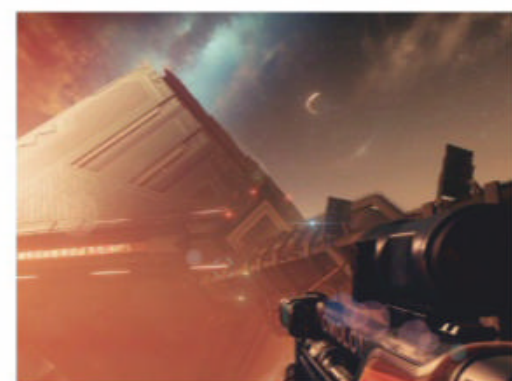
The life of a female monarch butterfly has been a mixed bag. Caterpillarhood and pupating were a cinch – it's all munching milkweed leaves and squirming free of your old skin. Mating was harder.

I got the racing part down, zooming around to whittle down the suiters to the fastest males. But after that I kept getting scooped up by a male and taken to the mountains.

I don't think that's supposed to happen because we then got stuck in the mountainside, squirming for eternity. Unless that butterfly's desires are... unconventional.

Anyway, I eventually figured it out and successfully interlocked our abdomens to initiate spermatophore transfer. The best part is that after mating you get to “hold A to oviposit”. More games should give me an ovipositor and the power to use it. Imagine that in, for example, *Call of Duty: Advanced Warfare*. “Press F to oviposit your eggs as a gesture of defiance.”

I think what I'm getting at here is that *Drunk on Nectar* contains enough ambition for both of us and that it is okay to spend my afternoon pressing A to get someone to bring me some toast. ■



“Preposterous space wizards and impossibly lavish skyboxes”

After a year away, I still love playing **DESTINY 2** solo

Almost immediately after finishing the story in *Destiny 2*, I uninstalled it. I saw the endgame unravel before me – a seemingly endless list of dull chores – and decided I’d had my fill. I got a solid 25 hours out of it, and that felt like enough.

Thing is, I play *Destiny* solo. I’ve never done a raid and I probably never will. To me it’s a singleplayer FPS that I just happen to share with other players. Taking part in those cooperative world events is about as social as the experience gets for me, and that’s plenty.

But almost exactly a year later, I’m back. The recent *Forsaken* expansion was on sale, which now comes bundled with previous expansions *Curse of Osiris* and *Warmind*. And feeling the urge to play a shooter, I decided to dip back into Bungie’s world of preposterous space wizards and impossibly lavish skyboxes.

And, well, I really like *Destiny 2*. It can get repetitive at times and the story is often a mess of impenetrable sci-fi jargon, but it’s such a fun, tight shooter. Floating around as a Warlock, firing lightning bolts and hurling cluster grenades, is

▶ **ANDY KELLY**



THIS MONTH
Reunited with his poor, neglected Warlock.

ALSO PLAYED
Watch Dogs 2

immensely satisfying. Doubly so because of the variety of weapons and enemy types.

It is strange returning to a game after a year. Everything that was once muscle memory feels alien and confusing. It took me a while to remember what each of my Warlock’s abilities did, and how to deal with certain enemies. But thankfully *Destiny 2* isn’t that complicated and I slipped back into my old routines fairly quickly.

I completed *Osiris* (fine) and *Warmind* (better), and now I’m about to start *Forsaken*. It’s an interesting way to play the game; thinking of it as a solo shooter rather than a sort-of-

I LOVE THE MOMENTS WHEN YOU EXPLORE THE RUINS OF THE OLD WORLD

MMO. I’m sure it’s a hell of a lot more fun with a co-op fireteam, but I’m glad Bungie considered solo players and adjusted the difficulty.

I don’t care about the Crucible, reputation rewards, exotic loot, or any of the other stuff designed to keep you playing. I’m here for the enjoyable nonsense of the story, the environments, and the PvE.

LONE WOLF

The world is one of the main things that keeps me playing. Bungie’s artists are stupidly talented, presenting a future vision of the solar system that is dramatic, colourful, and enigmatic. I love the moments when you explore the ruins of the old world, and the sheer scale of some of the scenery you encounter is impressive.

Games like *Destiny* are carefully designed to hook you in and keep you flapping around on the line until the next wave of content. But it’s totally possible to resist this aspect of the game and still have fun with it. When I’m finished *Forsaken*, I’ll be uninstalling it again.

The game will doubtless be screaming at me to keep playing to complete patrols, strikes and raids. But I’ll leave satisfied that I enjoyed 20 more hours of quality shooting. ■

“And where do they go when you follow them? Nowhere? Somewhere?”

Discovering the secret lives of NPCs in **THE DIVISION 2**

I have the distinct memory of bumping into an NPC in *Grand Theft Auto 4*. The citizen dropped his phone, which he'd been using to take a photo of a building. He groused about my rudeness, and then, rather than picking his phone up off the ground, he simply took a second phone from his pocket and resumed taking pictures.

One of the easiest ways to see how deep the simulation of NPCs goes is to interrupt their routines. Someone is walking down the street and you stop them. Do they eventually continue on their way, or do they stroll off in a completely different direction? And where do they go when you follow them? Nowhere? Somewhere? Do they travel aimlessly in circles or do they actually have a start and end point?

While playing *The Division 2* beta over the weekend, I run into some NPCs who were heading out to gather food. Having spent a lot of time in my gaming life following NPCs around, my expectations weren't high that these settlers were really going to gather food. I figured

CHRIS LIVINGSTON



THIS MONTH
Followed along.

ALSO PLAYED
Far Cry New Dawn

they'd just wander through the streets randomly until they got into combat or circled back. I was wrong.

I followed the group of foodies for a couple of minutes. They were very polite, noticing my presence and giving me a thumbs-up.

That's nice and all, but I was still doubtful they had an actual mission. After tailing them for a few blocks they turned off the street and approached a building.

A few drew weapons. One took cover. Another sat down for a brief rest. They seemed cautious about entering, so I ran on ahead and checked it out. Through the doors

was a courtyard, and it did indeed have some food supplies in it. And, to my surprise and pleasure, this little group of food gatherers actually started gathering food.

On the way back, we ran into a few members of an enemy faction. Gunfire erupted, grenades were thrown, and the settlers dropped their box of food, took cover, and pulled out guns. We fought and killed the enemies, and then I ran back to where the box of food was, fully expecting it to just be left there.

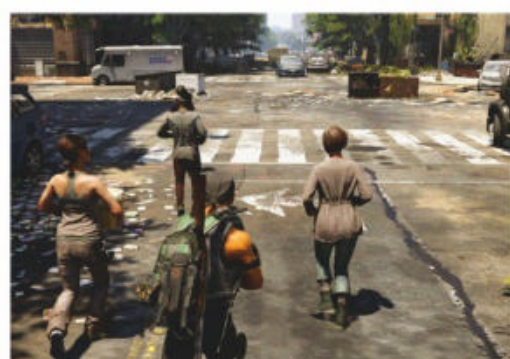
Again, I was wrong! Yes, it's done a bit awkwardly, as two scavengers clip through each other, but one does actually pick up the food.

SAFELY HOME

As for what happens when they make it back to the base, well, I wasn't exactly included in the mission debriefing. One of them shouts in victory, and the gate opens for me, but the NPCs have their own special door that only they can enter.

It's cool, though. I've got other things to do anyway. I can't just hang out with food collectors all day! I'm an important Division agent, after all. You guys... you guys have fun in your secret food room. Without me. ■

ON THE WAY BACK, WE RAN INTO A FEW MEMBERS OF AN ENEMY FACTION



I've just recruited this guy to fight alongside me.



It's a greatest hits of STALKER locations.

CALL OF CHERNOBYL

Create your own stories in this *STALKER* mod. *By Andy Kelly*

It's been ten years since the last *STALKER* game – 2009's *Call of Pripjat* – yet the Zone

remains one of the most evocative, mysterious, and fascinating settings on PC. This expanse of radioactive wasteland, located between the borders of Ukraine and Belarus, was devastated by the Chernobyl nuclear power plant explosion in 1986 – and, according to the game's fiction, another incident in 2006.

It's a bleak, nightmarish, but strangely beautiful landscape, teeming with mutants, weird anomalies, freak storms, radiation, and warring factions. The ruined cities, swamps, tunnels, bunkers – and the Chernobyl plant itself – have become home to stalkers, the Ukrainian government's name for anyone trespassing in the Zone illegally. Some stalkers are there purely for the adventure, but others are there to profit from finding, smuggling, and selling the many strange radioactive objects that can be found littering the wasteland.

The *STALKER* games are best described as semi-open world, giving you a series of large, interconnected spaces to explore. You're free to play at your own pace, scavenging, trading, fighting, and doing whatever takes

your fancy. But there's a structure, a purpose, and clear goals to strive for. You're playing as a defined character and there are missions to complete, ultimately leading to an ending.

WORLD TOUR

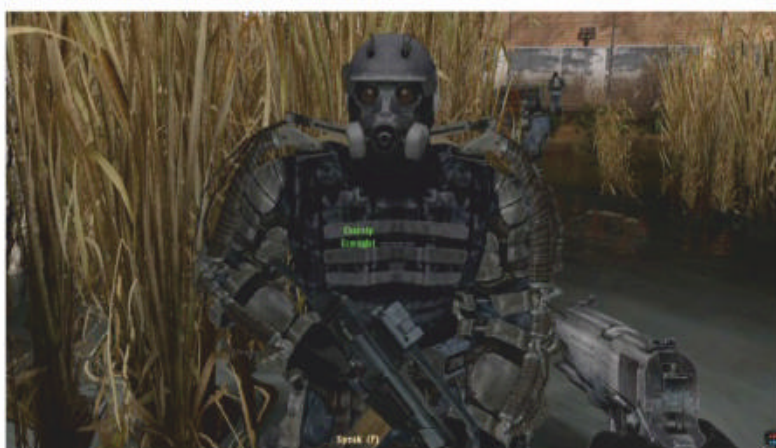
What makes *Call of Chernobyl*, a mod for *Call of Pripjat* created by TeamEPIC, so compelling is that it removes this structure completely and gives you the freedom to create your own stories in the Zone. Here the wasteland is an open-ended sandbox comprised of locations from all three *STALKER* games, as well as locations that were cut from the games and a brand new area created just for the mod.

You can travel freely between environments from *Shadow of Chernobyl*, *Clear Sky*, and *Call of Pripjat* – including, yes, the Chernobyl power plant and the abandoned city of Pripjat – turning

AN OPEN-ENDED SANDBOX COMPRISED OF LOCATIONS FROM ALL THREE *STALKER* GAMES

these fragmented chunks of the Zone into one magnificent whole. Transitions between different parts of the world can be quite clumsy and abrupt, because these maps were never designed to slot neatly together, but suspend your disbelief and it won't bother you too much.

You have no set role in *Call of Chernobyl*: you choose your character, their appearance, their name, and their faction. The faction you choose dictates which starting locations you can pick from, as well as what gear you start out with. You can play as a standard stalker, the loner class, and you'll begin your adventure with an assault rifle, binoculars, rations, a bottle of vodka, and a few rubles. But if you start as a member of the government-funded Ecologists you'll



DANGER ZONE *Places to visit in the wasteland*



DEAD CITY

This small, dreary town was abandoned in the wake of the Chernobyl disaster, and has been stripped of anything of value. Somehow, a statue of Lenin is still standing.



CHERNOBYL NPP

The nuclear power plant is perhaps the most important location in *STALKER* lore. For some it's a place of worship; for others, somewhere to be avoided at all costs.



SKADOVSK

A transport ship whose seafaring days are long over. But rather than leave it to rot, the local stalkers have turned the wreck into a base and a place to trade and socialise.



BRAIN SCORCHER

This abandoned military installation was actually an illegal, top secret government project designed to alter people's minds and suppress their aggression.

» get a powerful Eliminator shotgun, a first-aid kit, and other survival gear.

Other factions include bandits, mercs, government soldiers, and Monolith cultists. It's a great system, because it gives *Call of Chernobyl* a lot of added role-playing potential. If you've ever wanted to experience the Zone as one of the *STALKER* series' many factions, this is your chance. And it's more than just a superficial choice: your choice of faction dictates how friendly, or not, others will be.

Play as a bandit, for example, and the Ukrainian government won't take too kindly to your presence. Some factions you encounter will be friendly, some will be neutral, and some will simply shoot you on sight. It makes the wasteland feel wonderfully dynamic and alive. And, naturally, you can alter these relationships. If one faction is friendly and you start taking out their soldiers, that alliance will shatter.

HELPING HAND

One of my favourite features in *Call of Chernobyl* is being able to approach fellow faction members and get them to join you. Some of them won't be interested, but those that are can be issued a series of surprisingly complex commands. By default they'll just follow you around, shooting at anything you aggro. But you can give them more complex orders including patrolling or defending an area of your choosing or looting fallen enemies for supplies. I found myself growing quite attached to these companions, especially after they saved my skin in a firefight. You can chat to them too and they'll dish out little nuggets of advice about the Zone and how to survive in it.

Other NPCs will give you simple, seemingly randomly generated objectives, such as bringing them a certain type of food or ammunition. This gives a little bit of structure to *Call of Chernobyl*, but if it's a path to follow you want, there is a story too. I didn't make it very far through that but it is impressive that, as well as the sandbox, there's a more structured game in here too. Now I understand why it was voted Mod DB's Mod of the Year in 2016.

It's a curious feeling, choosing a role and stepping out into the Zone with no particular goal in mind. At first I found it quite daunting and aimless, not sure how to proceed. But like all good sandboxes, to enjoy *Call of Chernobyl* you have to make your own objectives. Some players might want to scavenge and tool themselves up with the best gear. Some might want to clear out camps and

settlements. Me? I just wanted to explore. There's something fascinating about the overcast, understated bleakness of the Zone, and the chance to explore all its key locations without switching games was hard to resist.

But I quickly discovered that exploration is easier said than done in the Zone. *Call of Chernobyl* is extremely hardcore – even more so than the vanilla game. If you wade into a firefight like Duke Nukem, you're probably gonna die. If you get surrounded by mutants, yep, you're dead. You have to move carefully through the Zone, constantly aware of your surroundings, and that makes the mod almost perpetually gruelling – even on rookie difficulty. But hey, that's what the Zone is supposed to be like. It fits the fiction and forces you to develop a respect for your surroundings. Whether it's bandits, radiation, anomalies, or mutants, the Zone wants to kill you, and keeping that firmly in mind as you wander is key to your survival.

I did get some enjoyment out of exploring, though. There's some stunningly atmospheric world-building in the *STALKER* games, particularly the ghostly, ruined city of Pripyat. This place is eerie enough in real life (well, at least based on all the Chernobyl documentaries I've watched), but in the game it's even more haunting – and dangerous thanks to the roving mutants and aggressive bandit gangs. This is a great world to go for an aimless walk

in, but I did find myself wishing for a little more quiet time to myself.

The time of day also affects how dangerous the Zone is. At night, predators such as Chimeras and Snorks will roam the wasteland. Faction bases will also randomly be attacked by waves of mutants, and you can get involved, helping your fellow stalkers hold the line – or just stand back and loot the bodies of anyone the mutants manage to kill. As you explore you'll often see battles between creatures and stalkers break out, and between rival factions, which is an example of the game's emergent AI. Everything you love about *STALKER* is in *Call of Chernobyl*, but now it's all in one place, and you can enjoy it without the pressure of pursuing an objective.

JUST STAND BACK AND LOOT THE BODIES OF ANYONE THE MUTANTS MANAGE TO KILL

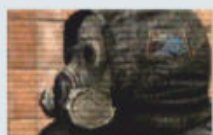
You also have fine control over the weather and environment. You can adjust sliders for individual maps, or choose from presets that affect them all: including my favourite, 'mostly bad', if you want frequent rain and lightning storms. This is the option I chose, because the weather effects in *STALKER* are so atmospheric.

STORM WARNING

Random psi-emissions are another interesting hazard. When these sweep in they turn any stalkers unfortunate enough to be in their way into zombies. I learned this the hard way when I was hanging out in a camp, only for the psi-storm to roll in and turn the people around me into shambling ghouls.

Call of Chernobyl is about as good as mods get, really. It takes everything that's great about the base game and presents it in a new and exciting way. Being able to role-play in the Zone, choosing your faction and deciding how you'll spend your time there, breathes new life into the game. And it should tide us over until *STALKER 2*, which is supposedly due for release in 2021. *Call of Chernobyl* hasn't been updated since 2017, but a stable, polished, and pretty much feature complete beta version is available on Mod DB. Hopefully we'll see more updates in the future, but for now this is one of my favourite ways to experience the Zone and all the unpleasantness in it. ■

GROUP CHAT *Some of the factions to join*



MERCENARIES

Starting gear: HPSS-1m pistol, anti-radiation kit, F1 grenade

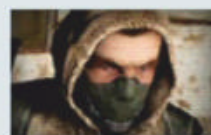
Their reason for being in The Zone is a mystery.



ECOLOGISTS

Starting gear: Eliminator shotgun, first aid kit, knife

A well-equipped faction funded by the government.



LONERS

Starting gear: SG-15k assault rifle, butterfly mine, binoculars

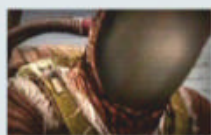
Free agents commonly known as stalkers.



CLEAR SKY

Starting gear: Tunder S14 assault rifle, vodka, bread

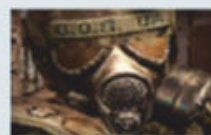
An independent scientific and military organisation.



MONOLITH

Starting gear: Walker P9m pistol, flashlight, leather jacket

A fanatical religious cult hostile to everyone.



GOVERNMENT

Starting gear: Fora-12 pistol, anti-radiation kit, binoculars

Ukrainian soldiers protecting the Zone's perimeter.

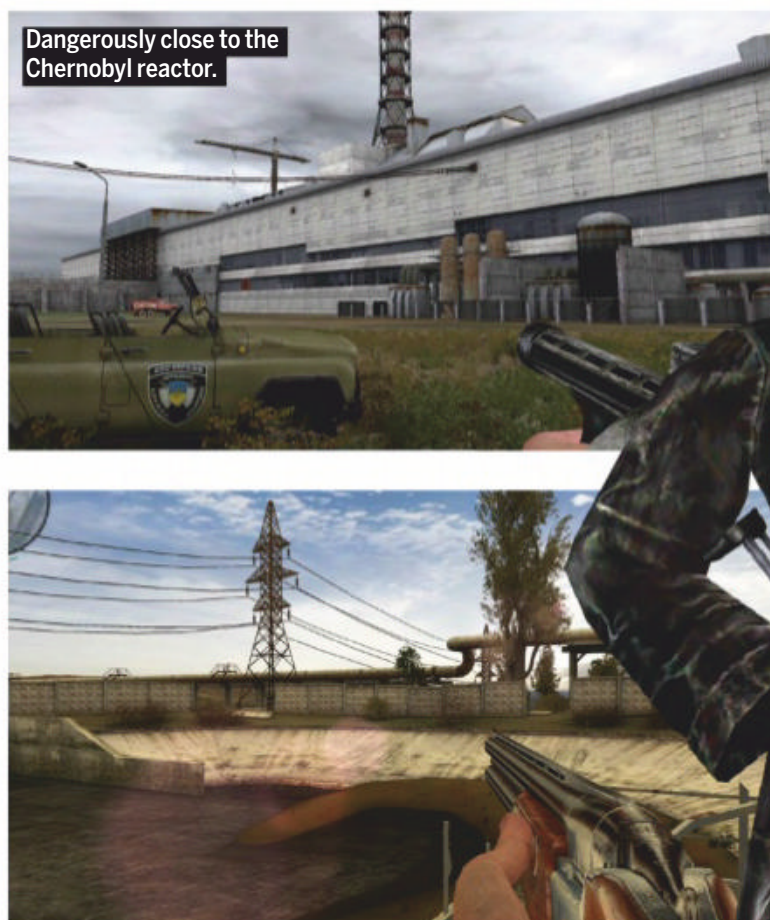
1986 was the year of
the Chernobyl incident.



A tired stalker kills
time by the campfire.



Dangerously close to the
Chernobyl reactor.





HOW TO

GET MORE FROM YOUR GAMES

PROTECT YOUR PC

Keep malware, unwanted software and crashes at bay, the easy way. *By Phil Iwaniuk*

NEED TO KNOW

DIFFICULTY
Easy

TIME
3-4 hours

VITAL LINKS

Bitdefender:
bitdefender.co.uk

Malwarebytes:
malwarebytes.com

HWMonitor:
cpuid.com/software/hwmonitor



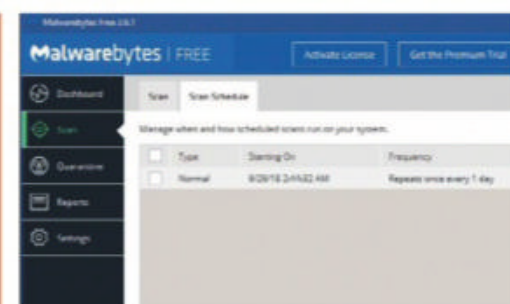
PICK A STRONG ANTIVIRUS

1 Let's start with the most obvious protection layer on your PC – antivirus software. Bitdefender, Norton, and Webroot SecureAnywhere are among the most trusted suites, but Windows' built-in Defender Antivirus is robust too.



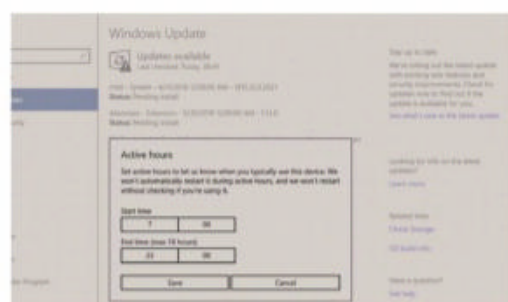
DOUBLE DOWN WITH MALWAREBYTES

2 It pays to take the belt and braces approach to harmful software by installing Malwarebytes in addition to your primary antivirus software. It's designed not to trip up other protection programs.



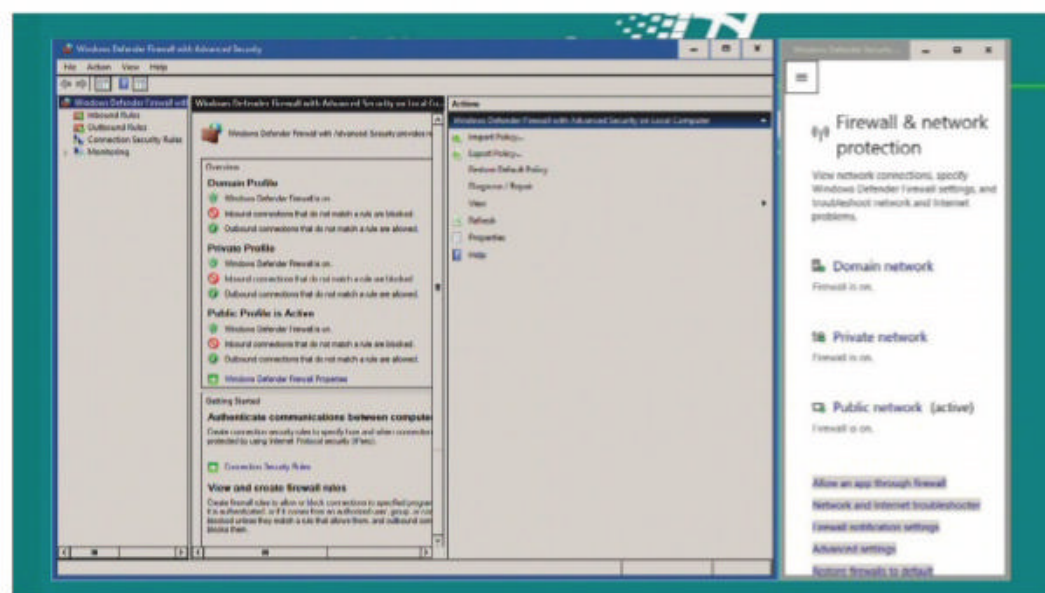
SCHEDULE REGULAR SCANS

3 Running a single deep scan in each of the above programs isn't a long-term defence strategy. Instead, schedule both your AV and Malwarebytes to scan all your storage at a convenient time – in the middle of the night, say, if you leave your PC on.



KEEP WINDOWS UPDATED

4 Yes, it nags like a caffeinated toddler, but Windows Update does actually contain valuable security patches that protect your OS from security exploits as they're discovered. You can schedule updates to install at night too if you like.

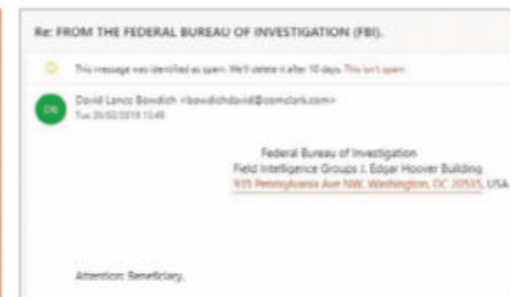
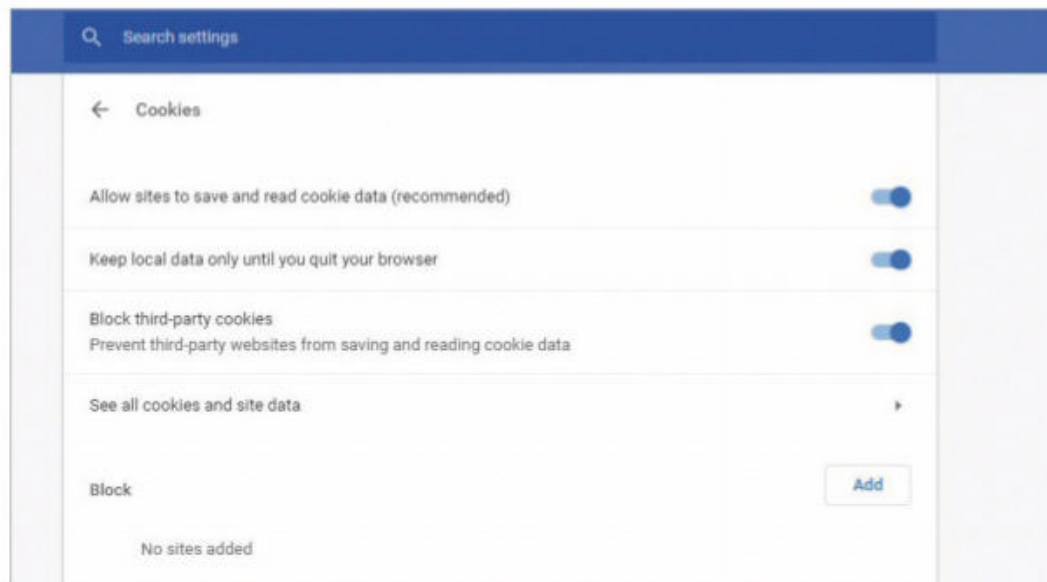


TURN WINDOWS FIREWALL ON

5 Firewalls act as a barrier between your system and other programs or users trying to access it remotely via the internet. Check Windows Firewall is enabled in the System and Security options.

LOCK DOWN YOUR BROWSER

6 Tweaking a few Chrome settings will beef up your security. Go to Content Settings and then opt to keep local data until you quit your browser, prevent any sites from running Javascript, and block notifications.



TRUST YOUR GUT

7 There's only so much your PC can do. If a website looks iffy, don't download anything from it. If an email seems suss, check the address and be wary of clicking any links, especially if the page it links to asks for card details.

KNOW YOUR PHISHING MAILS *Don't get reeled in*

This message was identified as spam. We'll delete it after 2 days. [This isn't spam](#)

FEDEX <from@yoneer.pw>
Mon 18/02/2019 14:41
You

DODGY EMAIL ADDRESS
The FedEx logo might be convincing, but look at that email address – the game's afout.

WANTS YOUR DATA
The missing info here in 'Dear _' suggests all might not be above board. And it wants personal data.

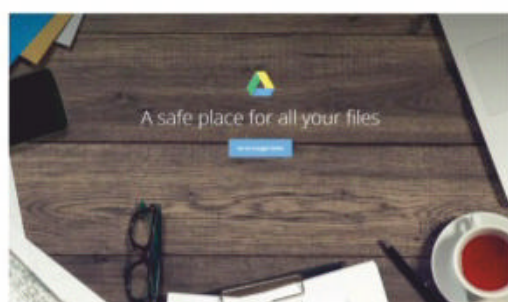
SUSPICIOUS LINK
Hovering over that button will reveal the link it'll send you to without you having to click it.

Update my address

This email has been sent to philwankuk@hotmail.co.uk

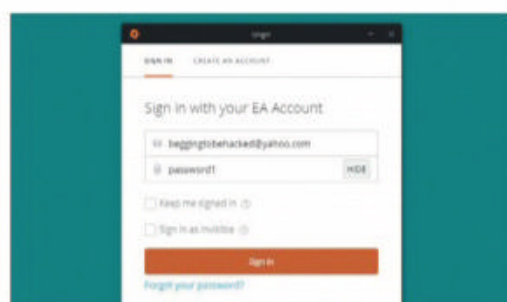
©2018 FedEx. The content of this message is protected by copyright and trademark laws under U.S. and international law. Review our privacy policy. All rights reserved.

1003079-3-8-US-EN-30234201



SAVE TO THE CLOUD

8 Security attacks threaten two things – your privacy, and your data. You can minimise your vulnerability to at least one of the two by keeping everything you care about backed up on a cloud – be it Google Drive, OneDrive, or even physical storage.



UPGRADE YOUR PASSWORDS

9 Not all passwords are created equal. Use two-factor authentication whenever possible either via a smartphone app or email, and consider changing important passwords to longer 'phrases' rather than random character strings.



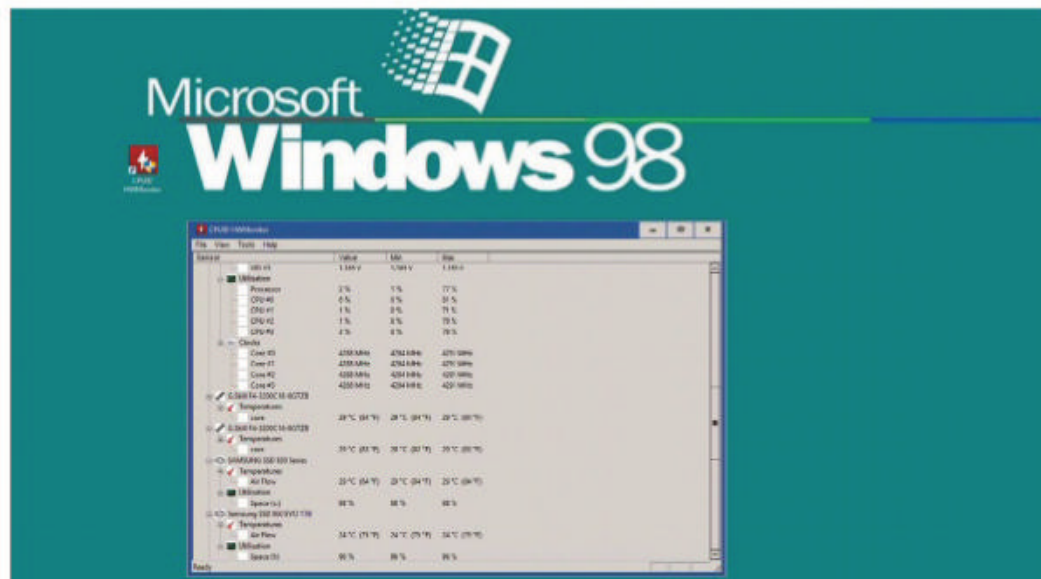
DUST YOUR PC CASE

10 With cybersecurity measures in place, turn your attention to the physical hardware and use a can of compressed air to clean out the dust from within your case when your machine's turned off. Dust will shorten your hardware's lifespan.



CLEAN THOSE FANS

11 Fans coated in dust move slower and work their little motors harder. Often cans of air can't dislodge build-up on fan blades so you need to do it manually with a cotton bud, being careful not to exert too much pressure on it as you do so.



WATCH YOUR TEMPS

12 High system temps account for more crashes than anything else. Check whether your cooling's adequate with HWMonitor, a program from the makers of CPU-Z that gives readouts on CPU, mobo, and GPU temps.



DISHONORED 2: THE JUDGE OF KARNACA

PART III

Reserving judgement in an attempt to
save Karnaca from Chaos.

By Rick Lane

THE RULES

1 Judge the actions of every NPC in *Dishonored II* using clues from the environment and game mechanics.

2 Only kill NPCs with clear evidence of wrongdoing. "Innocent" lives must be spared. Kill nobody.

3 High Chaos must be avoided if possible AT ALL COSTS.

Today we're visiting mining mogul Aramis Stilton, who resides in his manor on the outskirts of the Dust District. Stilton knows the secret to the usurper Delilah's invulnerability, and I need to retrieve it from him one way or another. To get there, I must also crack the riddle of the Jindosh lock, a huge mechanical door commissioned by Duke of Serkonos that separates Stilton's manor from the rest of the district.

Yet as I prepare for the mission, my concern rests entirely with the mess I made while judging the citizens of Karnaca last time. I'm only supposed to kill people who the Heart tells me are guilty of wrongdoing, but a series of calamities en-route to the Clockwork Mansion resulted in multiple accidental deaths. I then stupidly took my frustration out on the Witches who brought merciless slaughter to the Royal Conservatory. There's little doubt they deserved this, but my gratuitous actions have also sent my Chaos rating skyrocketing.

I left the Conservatory ready to let Karnaca burn, as finding a good person in Serkonos is harder than finding a Malteaser in a cow pat. But I've since had a change of heart. If I end the game on High Chaos, then all my efforts to rid Karnaca of its most evil inhabitants will be rendered pointless. I need to start reducing my Chaos level, and fast. Trouble is, I said this last time and ended up killing more people than I did previously. So as Anton Sokolov ferries me to the Dust District, I make a decision. I'm not killing anyone today. I'll still use the Heart to judge those I come across, but my blade is staying sheathed, no matter what they've done.

A DIFFERENT WAY

Instead, I'm going to focus on cleaning up the streets a different way. The Dust District is ground zero for a war between the Overseers and the Howlers. The Howlers are led by a man called Paolo, while the boss of the Overseers in this area is Vice Overseer Byrne. Either man will help me crack the Jindosh lock provided I eliminate the other and show them the corpse. But there's a third way to get the code, one that also lets me neutralise both men without killing them.

Pulling this off is tricky. First I must retrieve a key to the nearby Silvergraph studio from the office of a Howler named Durante. The Howlers are based out of a pub called the Crone's Hand Saloon, so that's my first stop. As I make my way there, the Heart decides to test my murder-abstinence by offering a few choice chumps. "He was afraid she'd tell the Overseers about his hobbies" the Heart whispers of one civilian sat on a bench. "He dragged her to a bloodfly nest." A little further on, I discover a man who blinded a cobbler with her own hobnails. Delightful.

It's tempting, very tempting. But I stick to my guns and move on. As if sensing my reluctance to get stabby,

the Heart tries a different tactic. I sneak into the Crone's Hand via an adjacent apartment condemned due to Bloodfly infestation. Inside, I discover a couple of Nest-Keepers, humans turned into thralls by the Bloodflies. I don't know how human they still are, but I focus the Heart on them anyway. "They've taken over his body, his mind," the Heart says. "Until he draws his last breath, they will control him."

Oh God. Must I ponder a mercy-killing now? *Dishonored* excels at making me feel bad about not-murdering people. No, I have to think about the bigger picture. I put both Keepers down with a sleep-dart, and enter the Crone's Hand.

I'm beginning to think this is going to end in another rampage. I'm already finding it hard to stay my blade, and to make matters worse I'm now inside the den of the

Howlers, one of the most depraved factions in the game. Yet as it turns out, things aren't so simple amongst the locals of the Crone's Hand.

"He brings flowers to her grave every day."

Oh, that's nice.

"No wine for this one, his coin goes to bread and cloth for that

I'M GOING TO FOCUS ON CLEANING UP THE STREETS A DIFFERENT WAY

mother and her babe."

That's very nice.

"His mother taught him to hide trumps in his sleeves and other card cheats."

Right, here we go.

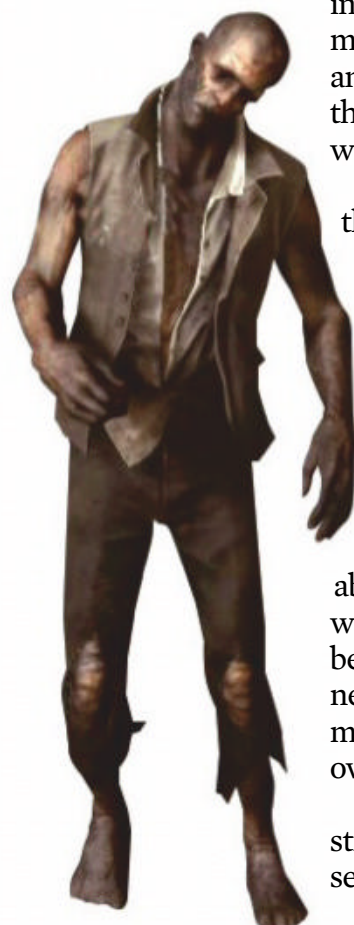
"Yet he plays an honest game."

Oh Heart, you tease!

Finding decent souls amongst the Howlers boosts my spirits, although sadly it doesn't last long. I manage to sneak to Durante's office, only to discover the door is locked. Turns out Durante got captured by the Overseers, and his key went with him. Great, so now I have to cross town, steal the key from the Overseers' HQ, and then come back. This not-killing people lark is a right faff.

PEOPLE IN NARROW ALLEYS...

The Overseer HQ is a crumbling multi-storey tenement shored up with elaborate wooden-scaffolding. The key I need is in the Vice-Overseer's office, right at the top. As I carefully sneak through the building, I set the Heart on any Overseers I pass. Nothing too egregious comes up, not that it would have mattered much.



The Duke of Serkonos has stripped the Dust District of resources, leaving its exhausted miners starving.



» In the end, I swipe the key unseen from Byrne's office with four other Overseers in the room. I'd forgotten how satisfying *Dishonored's* stealth play is, and I'm enjoying sneaking over rooftops and slipping through cracks once again. I return to the Crone's Hand and grab the Silvergraph studio key. I also nab the code for the Jindosh lock, scrawled on a piece of paper on another desk. I then scoot across the rooftops to the studio. Inside are two coffin-like transport cases that a pair of now-dead miners planned to use to escape Serkonos. I'm going to put Paolo and Byrne in them instead.

Paolo first, as he's directly below me in the Crone's Hand courtyard. I possess him, sneak him into a quiet corner, and choke him out. Instead of flopping to the ground however, he transforms into a swarm of rats.

Damn it, I'd forgotten Paolo is protected by black magic. As if that wasn't bad enough, the swarm scurries through the courtyard, alerting all the other Howlers. The result is a massive, multi-staged fight, as I gradually make my way up through the floors of the Crooked Hand, trying to fight off around a dozen Howlers without killing any of them. I achieve this with a combination of slow time, sleep-darts, and a whole lot of chokeholds, before finally knocking out Paolo a second time on the top floor of the building.

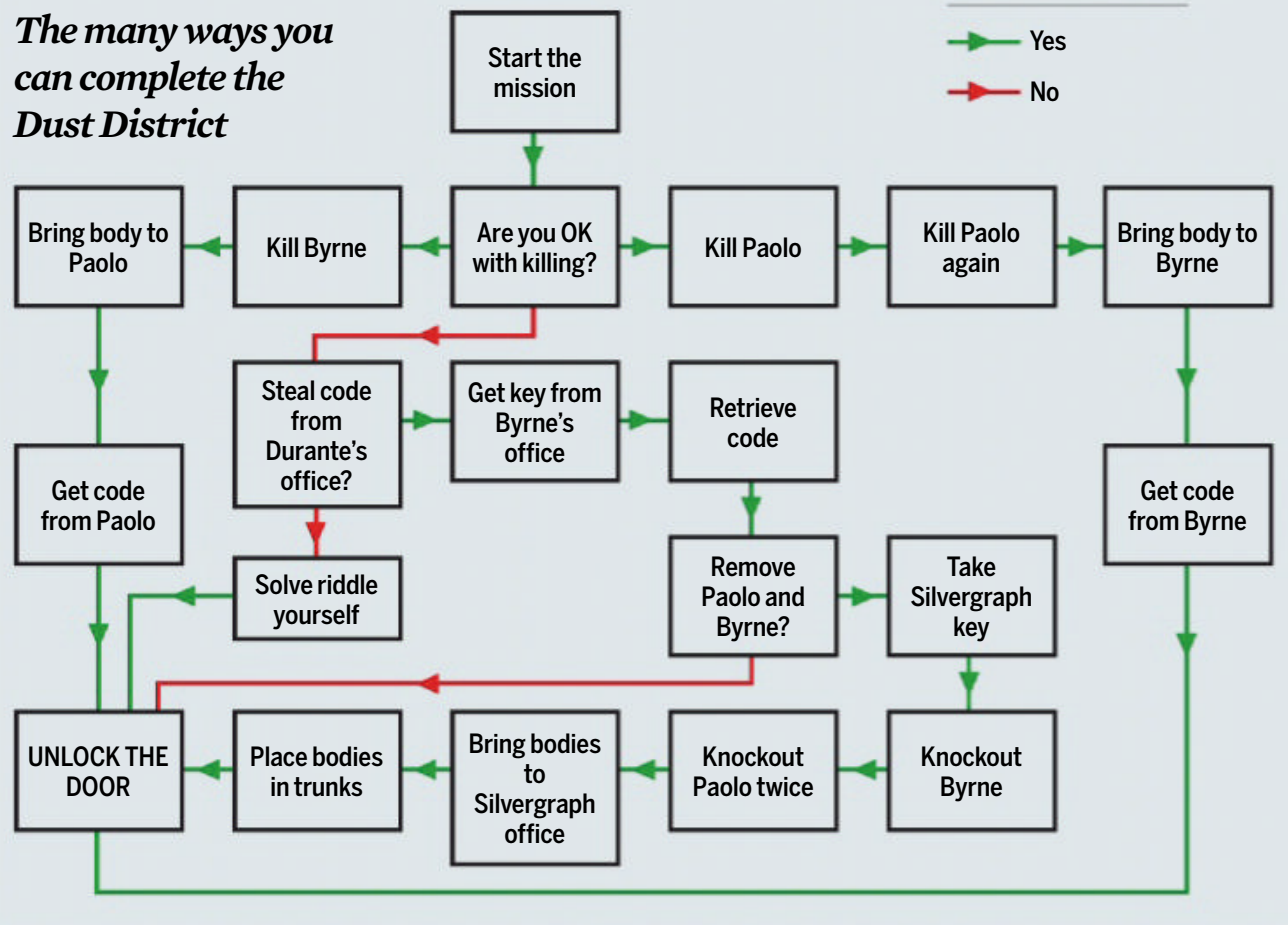
This time he remains un-rat-ified, and I transport the body to the Silvergraph studio.

Sorted. Byrne next. I head to the Overseer's office, but this time by a different route. Earlier I noticed a gap in the brickwork near the Overseer's HQ. Beyond it is an alley that leads to a back-entrance. I figure this will make for a slightly easier infiltration.

I figure wrong. Turns out a couple of Overseer's have booby-trapped the passage, and as I sneak up the path, I trigger one of said traps. The bolt misses, but the noise alerts the two Overseers at the top, and they spot me. I don't want to get into another fight, so I race back down

DUST 2 DUST

The many ways you can complete the Dust District



the path and slide through the gap in the brickwork. I figure they won't follow me this way.

This time I figure right, although I wish I hadn't. As I walk away from the Black Market, a massive explosion detonates behind me. I return through the gap in the brickworks to discover bits of Overseer everywhere. Seems there was a miscommunication in tactics between the Overseers. Only one chased me down the path, while the other decided to throw a grenade at me, which rolled down the hill and exploded at the feet of the first Overseer, blowing him to smithereens.

I mean come on! If I go to all this trouble to avoid killing you, the least you could do is avoid killing each other! You know what? I'm not taking the blame for this one. People in narrow alleys shouldn't throw grenades. Simple as that.

In the end the shortcut proves little more helpful than going in the front, which given someone just died for it is intensely annoying.

Nonetheless I manage to slip past the Overseer security and quietly choke out Byrne. I exit through the window in Byrne's office, and drop down onto the street below to deliver him to the Silvergraph studio.

Job done. Hopefully the Dust District will be a little better off without those two squabbling over territory. I make my way to the Jindosh Lock and enter the code, completing the level. My chaos level is still high, which is frustrating but unsurprising.

Fortunately, we're not finished yet, and I have a plan that, with luck, will tip the balance.

SEALING THE CRACK

Aramis Stilton's manor is unlike any other location in *Dishonored II*. A strange ritual performed there has left a leak between the void and the real world, hence the mission's official title A Crack in the Slab. This leak means my Outsider powers won't work here. Fortunately in their place the Outsider has provided me with a Timepiece that lets me travel between the manor's past and present.



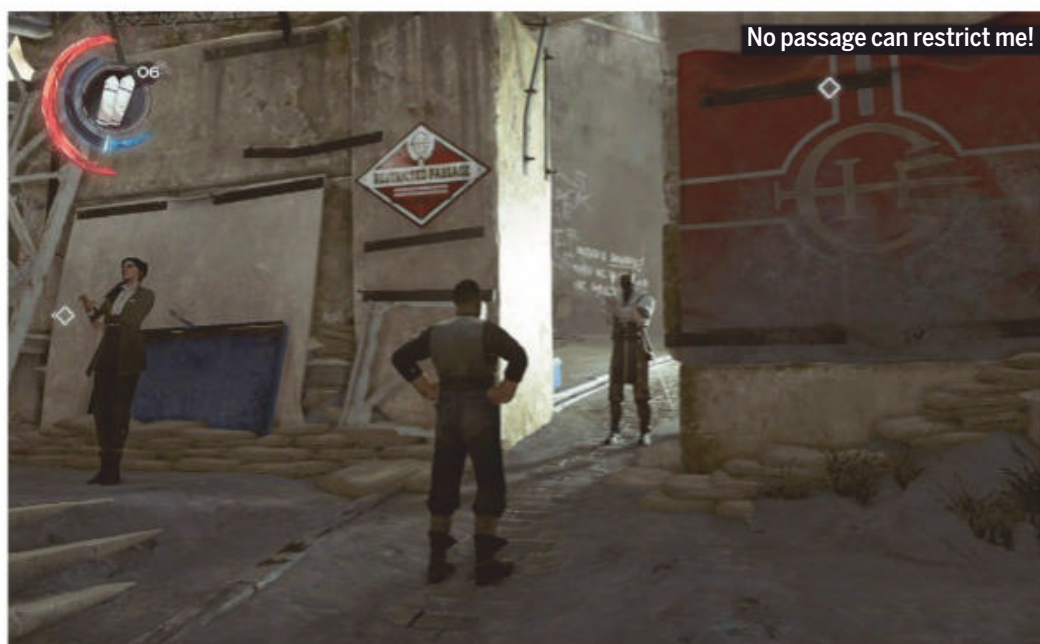
More importantly, actions performed in the past will have consequences for the manor's present.

I'm going to use this to save Aramis Stilton's life.

The mechanics of this are pretty straightforward, I just need to reach the manor's back-garden in the past, and choke Stilton out in his gazebo, preventing him from attending the ritual and witnessing the horror that took place there – a horror which drove him mad. The process, however, is tricky. The house is a gigantic maze stretched across two timelines. Doorways blocked in the present are clear in the past, and vice-versa. The absence of my powers makes movement trickier, although I can avoid guards easily enough by escaping into the other timeline.

Alongside the fact that I'm currently murder-averse, my journey through the manor is relatively low-key. The only truly notable event happens when I arrive in the back-garden and almost completely screw up saving Stilton. As I drop into the gazebo to choke him out, a pair of guards spot me, rushing over while I grab Stilton around the neck. One of them raises his sword to attack right through Stilton. I desperately back away as he swipes, and his blade misses Stilton's stomach by a hair's breadth. I put a sleep-dart in the guard, then hide Stilton amid the foliage before absconding to the present.

It works. Years of grime and decay are instantly swept away from Stilton's manor, replaced by gleaming marble polished by newly appeared servants. It isn't merely Stilton's home that has changed, either. As I complete my remaining tasks and head out into the Dust District, it too is revived. The buildings are no longer crumbling, and the



HIS BLADE MISSES STILTON'S STOMACH BY A HAIR'S BREADTH

miners are no longer hungry. "Maybe no one will even notice," Corvo mutters. "But things have changed here for the better." Seems all that not-killing people has paid off. But has it paid off for me? As I return to Sokolov in the skiff, I get my answer. Highlighted in

bright green lettering, my Overall Chaos level now reads "LOW."

A big relief. But the job isn't done yet.

I've only just tipped the balance of Chaos in my favour, and there are still two missions to go. I'm going to be walking a tightrope for the final stretch of the game, but the Judge is back in action. ■





REINSTALL

OLD GAMES, NEW PERSPECTIVES

It makes Gears of War look sensible





BULLETSTORM

Enjoying the high-kicks and low-brows of this shooter. *By Rick Lane*

Bulletstorm is the stupidest game ever made. Everything about this game is stupid. Your character is stupid. Your allies are stupid. Your enemies are very stupid. The weapons are daft. The skillshot system is absurd. The script almost prides itself on how much rank idiocy it can cram into every line. Even the setting is stupid, a holiday resort built using prison labour on an alien planet so hostile that it rains gamma radiation.

You'd be forgiven for thinking that *Bulletstorm* was developed by semi-concussed jocks during a two-year long frat party. It makes *Gears of War* look sensible, an impression that is probably the main reason why it sold a pitiful number of

copies when it originally released in 2011. The game has such a brash and puerile exterior that it put a lot of people off playing.

That's such a shame, because beneath the fathom-thick veneer of dumbness is one of the cleverest shooters designed this side of the millennium. Every stupid thing that *Bulletstorm* does has been designed with a huge amount of thought.

Take the aforementioned setting. Yes, building a luxury vacation town with a bunch of dangerous criminals on a highly irradiated planet is a terrible idea, but the result is a planet populated by hundreds of mutated psychopaths just desperate to greet your bullets with their faces.

You play Grayson Hunt, a mercenary who formerly worked as an assassin for prize interstellar scumbag General Sarrano. When

Hunt realised Sarrano had been sending him to murder innocent people, he went rogue and set his sights on Sarrano himself. *Bulletstorm* begins as Hunt encounters Sarrano's flagship, the *Ulysses*, in orbit around Planet Butlins. With his four-man crew, Hunt embarks upon a frontal assault that would form the climax of any other shooter, ending with Hunt using his own ship as a missile to punch a hole through the *Ulysses*, sending both vessels crashing down to the planet's surface.

STUPID IS AS STUPID DOES

One thing I've always admired about *Bulletstorm* is its sheer breakneck pace. The prologue alone gets through about four missions' worth of content, including a flashback sequence where you use gravity boots to walk down the side of a skyscraper. By the time the game commences proper, two of Grayson's crew are

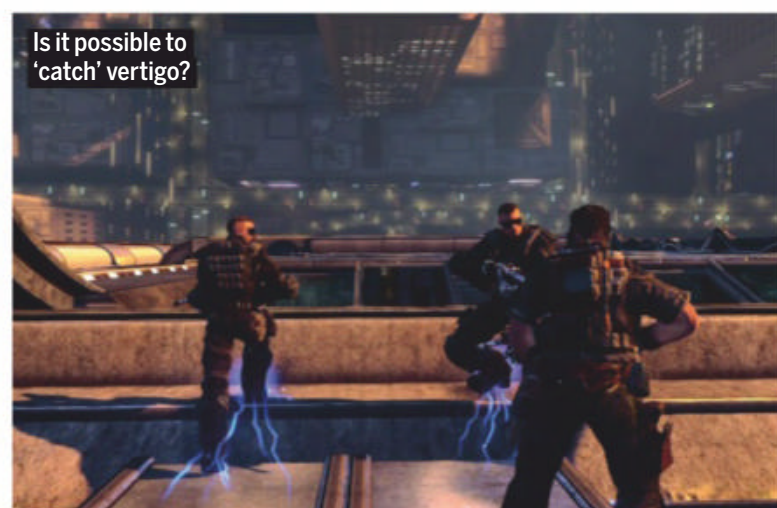
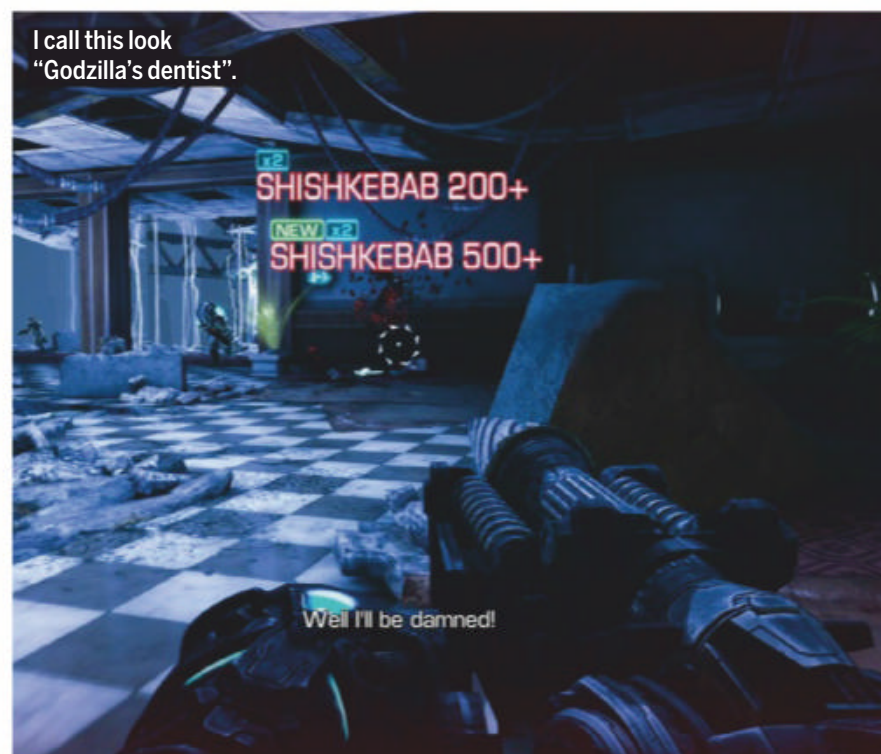
NEED TO KNOW

RELEASED
February 25, 2011

PUBLISHER
EA (now Gearbox)

DEVELOPER
People Can Fly/Epic Games

LINK
bulletstorm.com



dead, while the third – Ishi – has been turned into a cyborg in effort to save his life.

What's even more remarkable is that *Bulletstorm* barely breaks its stride throughout its entire six to eight hour length. The first chapter alone has about three gargantuan set-pieces, including a level where you're chased by a giant, motorised wheel, and another where you need to escape the nest of a Godzilla-like dinosaur. There's a sequence where you control a robot-dinosaur and a battle across a giant dam which, naturally, bursts in the process.

Bulletstorm's sense of scale and spectacle puts most other shooters to shame, and it's not even the point of the game. It's merely seasoning sprinkled into the casserole of shooting angry mutants in the most creative ways possible.

Yes, the skillshot systems was and remains *Bulletstorm*'s most unique feature. While you're free to kill enemies however you like, killing them in specific ways awards you with varying numbers of points. This could be by combining a kick to the face with a spray from your assault rifle to perform a "Bullet Kick" or

impaling an enemy upon some metal railings to pull off a "Voodoo Doll".

These points can be used to buy ammo and unlock new weapons, which, alongside the ever-shifting environment, can be used to conjure even more creative kills. Like People Can Fly's earlier game *Painkiller*, *Bulletstorm*'s weapons are delightfully eclectic. Highlights include the Flail Gun, which shoots twin explosives connected by a chain that coils around enemies before exploding, and the Driller, a ludicrous weapon that fires gigantic drill-bits at colossal speeds, impaling enemies onto any surface and spinning them around

like a meaty windmill. Combine these bizarre guns with the skillshot system, and you've got one of the most gleefully entertaining shooters ever made. Impaling multiple enemies on one drillbit for the "Shishkebab" bonus is almost worryingly satisfying, as is kicking a flail-wrapped enemy into a man-eating plant and blowing both up in a shower of blood and chlorophyll.

Like everything else about *Bulletstorm*, it's incredibly crass and incredibly silly, but it's also a huge amount of fun. The only downside to the skillshot system is that it rewards you for set tricks, which limits the



PUSH ME, PULL YOU

Bulletstorm's action involves pulling and pushing enemies and objects around. Try out these methods.

- 1. KICK**
Pushes enemies and objects away from you.
- 2. LEASH**
Pulls enemies and objects toward you.
- 3. SLIDE**
Pushes enemies and objects away from you in a cooler way.
- 4. SHOTGUN BLAST**
Pushes enemies and objects while doing damage.
- 5. THUMP**
Throws enemies and objects high into the air.



BULLETSTORM, ON THE OTHER HAND, DOUBLES DOWN ON ITS OWN GRATUITOUSNESS

creative potential of the system (there's no difference between kicking or sliding an enemy into spikes, for example).

SWEARING UP A STORM

What's interesting about *Bulletstorm* is that it inverts the typical way modern shooters present themselves. Most shooters try to justify their violence with a grand narrative about war and sacrifice and why all that killing is necessary and important. *Bulletstorm*, on the other hand, doubles down on its own gratuitousness. The script is unbelievably filthy, a cascade of swearing and toilet humour that almost completes the circle and becomes poetic.

Yet despite its crass front, *Bulletstorm* demonstrates more self-awareness than the majority of its peers. The game is clear on the fact that you're not playing as a hero.



Hunt is a bad leader and a worse friend, his own arrogance and desire for revenge having cost him everything except for his life by the end of the game's prologue. Two of his squadmates are dead, while Ish's RoboCop-style makeover has left him in constant pain, fighting the AI system keeping him alive and taking over control of his own body.

This isn't subtext either, it's frequently pointed out by other characters in the game. Trishka, the leader of Sarrano's special forces group, is probably the most scathing of Hunt's critics but Grayson himself is painfully aware of his own failings. Much of his swaggering smack-talk basically amounts to overcompensation. Beneath that he's desperate to save his last living friend, and in doing so harvest a grain of redemption from the mountain of shit he's piled up. This is partly why the addition of Duke Nukem as a playable character in 2017's *Full Clip* edition rang so hollow. *Bulletstorm* is ultimately only pretending to be a dumb shooter, whereas there is no pretending with *Duke Nukem*.

Indeed, to think of *Bulletstorm* as an "old-school" FPS is a mistake. It's

a thoroughly modern shooter, from the regenerating health to the aiming-down-the-sights to the fact that its characters actually have some layers. Most of the time this works, but there are a few areas where it just doesn't come together.

NO JUMPING ALLOWED

Most significantly, you can't jump. You can only mantle over certain obstacles. It's an odd omission in a game that is essentially about performing stunts with guns, and proves somewhat limiting in play. Moreover, while the environment design of *Bulletstorm* is incredible – particularly its crumbling sci-fi cityscapes – the actual level design is comparatively simplistic, lots of large, straight corridors cleverly decorated to make them feel more complex.

Ultimately though, this is the only area where *Bulletstorm* is simpler than it appears. Beneath all the blood and cursing and toilet humour is a brilliantly imaginative shooter with a unique sci-fi setting and enough action to fill a game twice its length. *Bulletstorm* may be the stupidest game ever made, but boy is it clever in how it goes about that. ■



WHY I LOVE

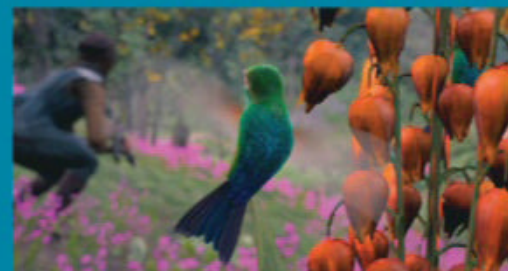
WHAT MAKES GAMES SPECIAL

DETAILED DIGITAL NATURE

The right kind of bugs. *By Philippa Warr*



RIGHT: Ever get the feeling you're being watched?



You know how when you find yourself vaguely near nature suddenly all you can hear is crickets and birdsong? You know how you look around and try to triangulate its source by turning your head and hearing it get louder or quieter? You know how you then remember this is a videogame and birdsong casually pours from trees and the chirping of crickets leaks out of shaggy green textures on the floor? All of this only increases my love of games where the devs spent time, energy and cash creating detailed digital nature for me to enjoy.

As one of those people who will hear a bird singing nearby and peer into a hedge for however long it takes to see the creature making the racket, hearing birdsong in games without an accompanying bird is profoundly weird. You're essentially hearing voice lines from an invisible NPC.

I understand why this stuff happens. Videogame development is resource intensive so you figure out how to create the idea of a space without breaking your budget. You can approximate woods using skyboxes, plenty of trees and some birdsong. There are a wealth of tools and audio resources for all of the above, and if you implement them in keeping with the spirit and look of your game players aren't likely to say "yes but an invisible flock of long-tailed tits has ruined this experience for me".

Generally I'll squint around when I first hear birdsong or insect noises in a new game and, if there are no accompanying creatures, I'll add the game to the relevant appendix of the Book of Grudges and get on with playing. I wondered whether I should stop checking at all, but over time I started to encounter more and more games which rewarded those moments of close inspection.

One which sticks in my mind is the *Dota 2* map. I used to download a match replay and open the console commands so I could switch into

GREAT OUTDOORS *The best insects in The Sims 4: Outdoor Retreat*



KATYDID

We call these bush crickets in the UK. They have such a wonderful silhouette!



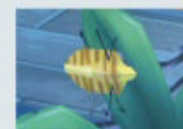
LOCUST

The detail on their faces is great, and that they're in flight is a cool touch.



MANTIS

If you put it in a vivarium you can watch its eyes swivel to look around.



STINKBUG

In *Sims 4* stinkbugs (shieldbugs in the UK) have lovely detailed turns!

freecam mode. It lets you roam the space and watch the wildlife which scurries and flaps on basic loops. While not sophisticated in their behaviour, the insects, bats, frogs, birds and other forest denizens are beautifully rendered. Some are even based on specific species. The fact someone took the time to create and add them makes the game feel richer.

A similar thing happened when I started looking at *Firewatch*'s insects. I was hoping to find beetles given the setting – no luck on that front – but the butterflies sport enough detail that I could think of them as specific species – kinds of swallowtail and monarch instead of just triangles flitting across the screen and bringing movement to a vista.

AT ONE WITH NATURE

One project which is built around noticing nature is *Walden, A Game*. It takes you through the seasons at Walden Pond as Henry David Thoreau. Regardless of how irritating you think Thoreau would be to spend actual time with (I, for example, think he would be the Absolute Worst), the game does a lovely job of highlighting the pleasures of drinking in the details of your surroundings. Blue jays come in to land, hares lope away, a bullfrog croaks by the edge of the lake.

The more you revel in nature (various activities like strolling and listening and contemplating increase your "inspiration") the more vibrant the game looks. You can also hold your right mouse button down while you look at something to get Thoreau's notes on whatever it is.

I really like that there isn't a hierarchy of interest there – he's as apt to consider a rock or a patch of dirt worthy of comment as he is a bird or a tree or the Milky Way.

Most recently there's *Far Cry New Dawn*. Don't ask me what the plot of *Far Cry New Dawn* is because I couldn't tell you. I've been too busy finding hummingbirds and swapping to photo mode so I can line up and take shots of them in all their glory. Hummingbirds aren't the only creatures in the game – in fact they're one of the most artificial as they hover around collectible plants like yucca and bougainvillea – but they're absolutely stunning. Plumage

I'VE BEEN TOO BUSY FINDING HUMMINGBIRDS AND SWAPPING TO PHOTO MODE

in various colour combinations and their calls catch your attention and reward a closer look.

The only downside is that these extra details slow me down immediately and disproportionately because I want to examine every little thing. I can't tell you what's happening in *New Dawn* because I haven't moved far enough in three hours to actually reach a checkpoint in the first story mission. I wondered whether I might just be making very slow progress, but no. I just looked up and I haven't actually gone far enough to lose sight of my home base. Perhaps this is why devs aren't so keen on adding detail. ■



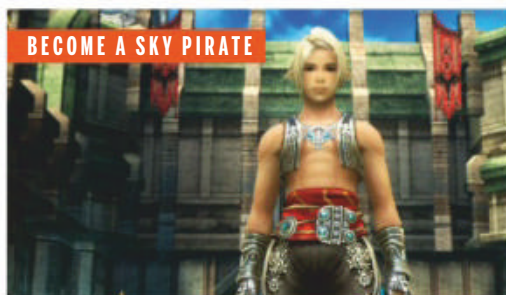
LEFT: Birds in *Dota 2* will perch on the team's pennants as well as the architecture.



ANDY KELLY



I was born with a mouse and keyboard in my hands. The doctors were stunned. But I prefer a pad these days.

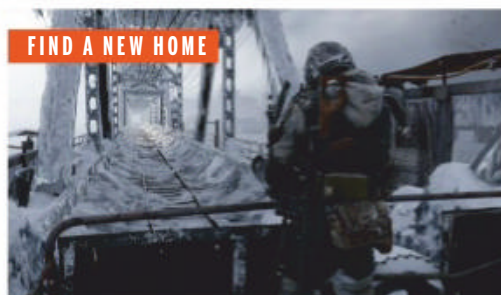


BECOME A SKY PIRATE

FINAL FANTASY XII

www.finalfantasyxii.com

→ While not as revered as the PlayStation-era games, this is comfortably one of the best *Final Fantasies*. The world of Ivalice is beautiful, with bustling cities, intricate architecture, and elegant airships. The story is understated and mature, featuring some genuinely likeable characters.



FIND A NEW HOME

METRO EXODUS

www.metrothegame.com

→ Leaving the claustrophobic tunnels of the Moscow Metro behind, silent protagonist Artyom embarks on a journey across a post-apocalyptic Russia. The first-person combat is a little shallow, but this is one of the best road trips on PC. Every location is stunningly atmospheric.



JOIN A HACKER CREW

WATCH DOGS 2

www.watchdogs2.com

→ Honestly, who expected a sequel to the dreary *Watch Dogs* to be so much fun? Featuring a gorgeous, sun-soaked recreation of the San Francisco Bay Area, this is one of Ubisoft's best, most assured games. Vibrant characters, varied missions, and a sense of humour make this a world you want to spend hours in.



REVISIT THE 1980S

SHENMUE I & II

shenmue.sega.com

→ This weird, wonderful martial arts adventure, previously only available on Dreamcast, is part revenge epic, part mundane life simulator, and there's nothing else like it on PC. The original is the highlight, letting you explore a slice of 1980s Japan as teenager Ryo Hazuki, searching for the man who killed your father.

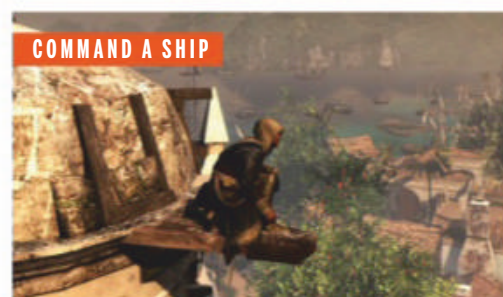
MUST



PLAY

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OF THE BEST
GAMES YOU CAN
PLAY RIGHT NOW**

by Andy Kelly



COMMAND A SHIP

ASSASSIN'S CREED IV:
BLACK FLAG
www.assassinscreed.com

→ This seafaring adventure remains one of the highlights of the wildly hit-and-miss *Assassin's Creed* series. Slipping into the puffy shirt of cocky Welsh freebooter Edward Kenway, the game lets you captain your own galleon and explore the sparkling waters of the Caribbean.



CREEP YOURSELF OUT

SOMA

www.somagame.com

→ Set in a spooky underwater facility, *SOMA* is one of the best modern horror games on PC. But if you want to experience the story to the fullest – and it is one of the best ever told by a videogame – you might want to consider enabling Safe Mode. The aggressive monsters can get in the way of the mind-bending plot.



PLAY BOTH SIDES

SLEEPING DOGS

www.sleepingdogs.net

→ Set in a vivid, colourful recreation of Hong Kong, this crime epic has you playing as an undercover cop embedded with the Triads. Missions are split between being a criminal and being a cop, and the tension of being discovered makes for an engaging story. It's a shame the series had to die after just one game.



CREATE A DINOSAUR

JURASSIC WORLD EVOLUTION

www.jurassicworlddevolution.com

→ It's not as deep as Frontier's other sim, *Planet Coaster*, but this is an accessible (and surprisingly chill) park builder. The simple interface makes building enclosures and creating dinosaurs by splicing DNA enjoyably simple, and unpredictable events such as tropical storms mean chaos is always ready to erupt.



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IT'S ALL OVER...

TOM CLANCY'S THE DIVISION 2

ONE CAPITAL CITY – ONE MISSING PRESIDENT – NO STORY

"Bad men are in the National Air and Space Museum?" asks Jack Ryan. "Say no more. No. Really. Stop. I don't need a reason to kick ass in what was, in 2016, the third most visited museum in the world."

With that, Ryan strode out of the White House, not stopping for a moment to consider the potential symbolism. Subtext? Jack Ryan doesn't know the meaning of the word subtext. He never went to college.

"Are you an American, or an American't?" yelled the faction leader, holding Ryan hostage while having no discernible political views of his own. As surprise robot bees suddenly tear into the guy's flesh, Ryan effortlessly breaks his handcuffs, tears the 450-rated kneepads off his captor and stands triumphant. "That answer your question, you ideologically ambiguous sicko?"

Capitol Hill's become Capitol KILL.

Air Force One has become Air Force GONE (it crashed).

Only Jack Ryan can stop DC from being blown back to BC.

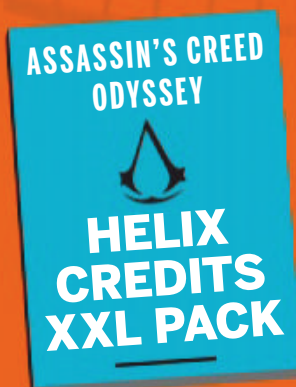
PRAISE FOR THE WRITER WHO ONCE SPILLED COFFEE ON TOM CLANCY

"A story so nebulous even Jack Ryan doesn't seem to know what's going on"
– THE GUARDIAN

"At last, a book that gets my world" – DEEP WEB FORUM BOY

"Finally, a story that offends no one by being irrelevant to everyone"
– COLUMNIST DENIED TWITTER VERIFICATION

FROM THE AUTHOR OF:



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02



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